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Sixty-eight representatives of various types of health field organizations attended a conference held at the Medical and Dental School of Tufts University to examine needs and problems in health occupations training and to consider new program patterns. Speeches by experts in the health and education fields, an inspection tour of the Springfield Trade High School and Technical Institute, and intensive small-group discussions were featured. The major outcome of the Conference was the refined concept of a Center for Health Occupations: an "organized department or facility, or unit, within a school or school system that provides occupational training for health occupations." Recommendations concerned (1) cooperative ongoing planning, (2) attention to the high school curriculum as well as to programs for adults, and (3) provision for student progression from one level to another. An executive committee was appointed to provide means for assessing new programs and to evaluate conference impact. After the conference a questionnaire was distributed to conference participants, a film strip describing the Springfield project in which pilot programs were inaugurated out of the core of the medical assistant program was in process, and curricular materials were sent to participants and other interested parties. Appendixes include eight speeches, a list of participants, the conference program, and the questionnaire. (JK)

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May 1, 1967

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ON NEW EDUCATIONAL CURRICULA FOR SUB-PROFESSIONAL PERSONNEL IN HEALTH SERVICES

Project No. 6-2664
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Grace L. Nangle, R.N., Principal Investigator,
Conference Coordinator, and Senior Supervisor of Health
Occupations Training, Bureau of Vocational Education

May 1, 1967

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Commonwealth of Massachusetts
State Department of Education

Owen B. Kiernan, Commissioner
Thomas J. Curtin, Deputy Commissioner
Walter J. Markham, State Director of Vocational Education

Boston, Massachusetts

INTRODUCTION

Purpose of Interim Report - This report is designed as a working paper. The intent of the conference was to encourage the establishment of new programs or the modification of existing ones, in the health occupations training field. The information which will assist in this task is contained in the Conference recommendations and the Conference speeches. Therefore, the interim report features these, while only briefly summarizing the mechanics of the Conference, itself. The report also lists all participants, with their current addresses - so as to facilitate interchange of views and facts on programs and problems of mutual interest - and describes the participant questionnaire.

Background of Conference - The most important set of conditions which provided the spur for this conference was: Many new factors - including the sharp rise in population, the changing population age-distribution (to an aged-youth, bell-shaped curve), the passage of "social welfare" Acts by Congress, the continuing shift from rural-suburban population spread to metropolitan concentration, the numerous advances in medical research and technology, and the shortage of (or inadequate preparation of) health services personnel - have placed a much greater demand on hospitals and educational institutions which previously have had the responsibility for producing skilled health services workers.

Statement of Problem - Briefly, the problem was to assemble the various "users" and "suppliers" of vocational-technical health services personnel to discuss not only the overall issues which affect all educational-training fields, but especially to formulate jointly new patterns of training which might more efficiently utilize the talents and facilities represented by all Conference participants. Since some of these patterns might well be "ideal", there was also the more practical concern about how to modify existing programs toward the same ends, and how to enlist the aid of members of any given local power structure in any case.

Purpose of Conference - The Conference, itself, and its subsequent activities had the following objectives:

1. Provide the means for representatives from professional health organizations to work with educational-training specialists in constructive reaction to the above problems.

2. Provide suggestions for expanding and improving existing programs and facilities, and for evaluating their output in a more systematic way.

The last two speeches listed above also appear verbatim in Appendix A.

Other Preparations - The principal investigator also intended to present two other items for the consideration of the participants.

The first was a collection of curriculum materials from various exemplary health training programs throughout the United States. However, it was determined, after requesting such materials, that very little had been produced in usable, published form. Therefore, this step was temporarily omitted but is now being pursued as described under "Current Steps", below.

The second item was the creation of a film strip explaining one method of inaugurating pilot programs out of the core of the Medical Assistant course. Unfortunately, the start of this film effort coincided with the end of the school year at the Springfield Trade High School - where the film was produced - and the principal investigator decided that the comprehensiveness and quality of the photos would suffer badly. Therefore, this small but important item was postponed for the moment, with the thought that it could later be used for distribution to participants and others who might find it useful as an additional guide in establishing their own programs.

CURRENT STEPS

The Executive Committee - At the conclusion of the Conference, the following persons were appointed to this committee by the principal investigator, with the concurrence of the participants:

Dr. Louis J.P. Calisti
Dean, Tufts University School of Dental Medicine

Dr. Nathaniel B. Frank
Professor of Physics, Massachusetts Institute of Technology

Dr. Robert Kinsinger
Director, Division of Public Affairs and Education
Kellogg Foundation

Dr. Otto Legg
Assistant Director, Program Planning and Development, DVTE
Bureau of Adult and Vocational Education, USOE

Miss Grace L. Nangle, R.N.
Senior Supervisor for Health Occupations Training, BVE
Massachusetts State Department of Education

Miss Rae Picucci, R.N.
Supervisor for Health Occupations Training, BVE
Massachusetts State Department of Education

Miss Helen Powers
Chief, Health Occupations Unit, DVTE
Bureau of Adult and Vocational Education, USOE

Dr. A.N. Taylor
Director, Department of Allied Medical Professions and Services
American Medical Association

The purpose of the Executive Committee is to oversee the remainder of the Conference contract and the long-range objectives specified in that contract. Briefly, the more important of these objectives are:

1. Devising methods for assessing long-range Conference impact, beyond a six-month range which will be covered in the final report, according to information gathered from the appended survey of Conference participants.

2. Studying pilot programs started or new organizational patterns initiated in health occupations training as a direct or indirect consequence of the Conference, including specification of increased numbers of, or changes in kind of, prepared workers in selected categories.

This Committee held its first meeting in Washington, D.C., on April 25, 1967. Matters discussed were as follows:

1. Review and revision of the participant survey questionnaire
2. Suggested methods for assessing long-range Conference impact
3. Suggested methods for assisting projects implementing Conference ideas
4. Description of new programs throughout the United States
5. Review of interim report status
6. Review of film strip status
7. Suggested final form of Conference recommendations

The final Conference recommendations developed by the Executive Committee are included in this interim report, under the next major section, "Conclusions".

Participant Survey - A questionnaire, intending to provide data for the six months immediately following the Conference on new programs started or existing ones modified through the activities of participants, as well as a rough assessment of the number of workers trained in such programs and their occupational specialties, has been distributed to all of the Conference participants. The results will be listed in the final report. The questionnaire, itself, is reproduced in its entirety, as Appendix D of this interim report.

Film Strip - The film strip depicting the operation of the Springfield Project is now in its final stages of completion. It will be made available to all participants and other interested parties, at cost, and will be filed with the U.S. Office of Education and the U.S. Public Health Service. Orders have been requested in the questionnaire mentioned above.

Participant "Package" - A package is being sent to all Conference participants, including: The Interim Report, a brief description of the film strip, and selected curriculum materials from the Springfield Project. The latter will substitute for the materials which could not be acquired for presentation at the Conference, itself. The Springfield course outlines cover topics included in all health occupational training offered in the project, and are in mimeographed form.

CONCLUSIONS

The group discussions began with the following questions. According to the desires of the groups, more emphasis was placed on certain kinds of questions than others.

1. How shall we define the term "technician"?
2. What can be done to promote better utilization of health service personnel?
3. How can we have better job analysis of Health Service Personnel, in terms of present social context and anticipated social needs?
4. How do we train teachers? and, What "levels" of education will provide horizontal and vertical mobility among teachers?
5. What introduction to health occupations can be arranged in the high school years?
6. What are the implications of such exposure for modification of the general sciences, social studies and guidance programs?

7. How can in-service training in nursing homes be made more effective?

8. How can certification requirements be revised to meet current educational and technological advances?

9. What training for health occupations is considered feasible at the high school level?

10. How will we procure the necessary guides, curriculums, instructional aids and leadership personnel to expand and develop programs?

11. What high school preparatory subjects are needed to provide a base for more effective post high school health technician programs?

12. What new methods of evaluation and educational research relate to health service technician programs?

13. How can an associate degree program for health care occupations be established within the organizational framework of a general hospital?

14. How does one determine the need for further development of health occupations, other than practical nursing?

15. How can we communicate effectively with students about educational and occupational opportunities open to them?

16. How can professional associations review accreditation requirements in the light of modern educational developments?

17. How can we provide stimulating career exploration as part of decision making?

18. How can the professional curricula assist professional students to work with and supervise technicians?

19. How can professional curricula expand their levels to the point of preparing graduates who are able to fulfill the role of a professional person; with knowledge, judgment, skill, abilities to analyze and organize activities, perception into needs of others, etc.?

20. How can the recommendations of this group be utilized to increase the impetus for technicians' training?

21. How can the impact of this conference be evaluated by the Advisory Committee on a follow-up basis?

22. Can systems analysis be used as an aid in investigating social and health questions?

23. How can professional groups achieve change without losing values which have built up through the years?

24. How can change be achieved within the school system to provide enough educational opportunities to prepare technicians for the health services?

25. How can new and helpful audio-visual aids be developed and be made available to local school systems?

Recommendations were based on a consensus that ongoing cooperative efforts must continue by educators and employers to produce more prepared personnel for the health services. The full support of Federal and State Agencies is needed for this effort, discussants emphasized.

In order to accomplish this goal, many suggestions were made. Regional planning, to assess health manpower needs and to develop an educational framework within which these needs could be met, was recommended strongly.

The conference recommended that such planning include both health professionals and educators, and that it should be a continuing process, not one project to be dropped thereafter.

The recommendation was strongly made that educational patterns be devised to insure that students move from one level of education to another with minimum loss of credit and time.

The conference members recommended that the basic school curriculum should contain effective health education.

The groups recommended enlargement of opportunities for junior and senior high school students to learn about and become involved with the health occupations. These experiences should allow the student to achieve the satisfaction of service to mankind and should include volunteer activities.

In addition to promoting more interest and knowledge among the youth in health services careers, the conference recommended that recruitment and retraining of middle-aged and older workers must be given attention. It was believed many groups in society must be tapped for workers in order to provide adequate health care in the coming years for the total population.

The conference strongly recommended that many more teacher-training programs be inaugurated. The utilization of the technician as a teacher was recommended by some groups.

The recommendation was made that the particular background of the individual be evaluated in such cases, rather than emphasizing the usual "degree requirement".

The conference urged that curriculum materials in the health occupations be made easily available and accessible.

Members at the conference believed that a central or regional headquarters for such materials would expedite the opening of new programs.

Conference members recommended that these materials be fully publicized to the educational community.

The topic of the relationships of the professional technicians within a health discipline was also reviewed.

The conference recommended that the educational preparation of the professionals must include the understandings and skills needed by them to effectively supervise and optimally employ supportive technicians.

The study of health personnel functions was also recommended, so that all members of the health team would be employed at their highest capability.

The study should be ongoing, and the findings reflected in the educational programs of all concerned.

SUMMARY

This Conference, entitled, "New Patterns of Education for Health Technicians" (under a U.S. Office of Education contract entitled, " A Conference on New Educational Curricula for Sub-Professional Personnel in Health Services") was conducted at the Medical and Dental School of Tufts University, under the joint sponsorship of that institution and the Bureau of Vocational Education, Massachusetts State Department of Education, from 3 October 1966 through 5 October 1966. The purpose of the conference was to examine the needs and problems in the health occupational training field and to provide a vehicle by which health and educational professionals might exchange views and design new program patterns. Sixty-eight persons, representatives of many types of organizations, attended the conference, which featured speeches by experts in the health field, an inspection trip of the

Springfield Project, and intensive small-group discussions. The major outcome of the Conference was the refined concept of a "Center for Health Occupations", and the need for hospitals and educational establishments to enter into such a concept on a joint basis. At the conclusion of the Conference, a Executive Committee was appointed to provide means for assessing new programs, for evaluating Conference impact and for establishing guidelines. At this date of this report, a questionnaire has been distributed to the Conference participants, a film strip describing the Springfield Project is close to completion, and curriculum materials are being sent to participants and other interested parties. The results of the survey, plus the further activities of the executive committee will contribute to a final report, due about 30 June 1967, which will provide statistics on new programs started as a result of the Conference, a description of any significant, reproducible changes effected in content and instructional techniques, recommendations for evaluating long-range Conference impact, and recommendations for improved Federal-State-Local collaboration in solving the health services' training and educational problems.

APPENDIX A

SPEECHES

Although speech transcriptions often do not read smoothly, the principal investigator decided to edit only where absolutely necessary, so as to retain the flavor of the presentations as they were originally offered to the conference. All speakers have given their permission for publication of the following addresses in this interim report.

Monday, October 3, 1966:
"Projected Health Manpower Needs"
by
Mrs. Margaret West, Assistant Chief,
Division of Public Health Methods,
U.S. Public Health Service

This conference on "New Patterns of Education for Health Technicians," reflects, as I hardly need tell you, an enormous surge of national concern with health manpower. Everywhere, there is acute awareness that today we have at our command a great body of medical knowledge, a great resource of hospitals, and other facilities, and an economic situation in which we can afford to provide a broad array of health services. We have the knowledge, the materials, and the money; we do not have the manpower!

This morning, I would like to review: (1) Some of the social and economic factors which are pushing up demands; (2) Some of the long range trends in the supply and demands for health manpower; and (3) some of the indications of demand for health technicians.

Social and Economic Factors

Population growth

Between 1965 and 1975, it is expected that the population will increase by 31 million. This means adding health services each year for the equivalent of the city of Los Angeles or 3 times the city of Boston.

Economic resources for health

This year the total national expenditures for health services exceeds $40 billion. In 1955, it was less than half that much. Private expenditures for direct health services, health insurance and prepayment taken together, rose from $12 billion in 1955 to $26 billion in 1965. Public expenditures for health services, like private expenditures, more than doubled over the same ten years.

The new Medicare legislation, of course, is beginning to increase the financial resources for the provision of services to those with the greatest needs and the most limited financial resources.

During the decade, the proportion of the gross national product devoted to health services has increased from 4.7% to 5.9%. It is estimated that the GNP expended for health services will reach 8.7% by 1980.

New Technology

The recently published Report of the National Commission on Technology, Automation, and Economic Progress indicates that, looking at the economy as a whole, "health and the urban environment (are) among the most important areas where new technologies can make a substantial contribution. The Commission sees, that with new technological developments, a need for more health manpower, with better preparation."

"We have not developed the proper manpower training programs for the new technologies. We continued to hold onto our traditional and basic training programs in the various health and medical fields without analyzing the new technologies available and the real possibility of training new categories of manpower who can perform many of the functions now carried out by highly skilled and scarce professional personnel."

"One solution lies in restructuring our training programs in accordance with current scientific and technological developments. The only solution, in the long run, is an increase in the number of trained medical personnel."

Variations in use of services

Today, there are very substantial variations in the use of health services by members of different social and economic groups, people in families with larger incomes receive more services than those with lower incomes. Rural residents receive more services than city dwellers; residents of the Northeast receive more services than those in the South! Looking to the future, we can expect demands for service to increase as the population increases, as groups receiving limited services move toward higher service levels, as new measures to reduce the economic barriers to care for low income groups become effective, and as the potential benefits of health services increase.

Trends in Supply and Demand

Looking at the national labor market picture we can see how changes in the health occupations are part of the whole changing picture in employment. It was less than 15 years ago that the service workers first outnumbered farm workers, and the "white collar" workers first outnumbered the "blue collar" workers.

Today, there are about 2.4 million persons employed in the health occupations. There is every indication, taking into account both growth in demand, and growth in the national capacity and willingness to pay for health services, that this number will increase by not less than a million in the coming decade! This would mean a total of at least 3.4 million workers in the health field in 1975. We could make profitable use of many more.

Where can this increase come from? Obviously, the professions with long training programs can expand only slowly, and the bulk of the increase in numbers must and should come from the technical and supportive level.

Among today's 2.4 million health workers, probably these could be broken down roughly into quarters. That is, say 1/4 are Professionals (except nurses), 1/4 are nurses, 1/4 are Technicians and Vocational, and 1/4 are short of, or have, no training.

Therefore, one fourth of the total are in the groups for which technical or vocational education is prerequisite today, that is, to have at least 1 year of post high school training, but less than baccalaureate. The annual output of the technical and vocational programs, including junior colleges, is now about 50,000. It would seem a reasonable goal to double this output in less than a decade.

In what occupations are there particular needs? In every health profession, the present and foreseeable supply is alarmingly short. Each is increasingly dependent on technical assistance. The extent to which people will get needed care in the future depends on the sound developments of training programs for technicians and supportive workers.

In numbers, technical skills for which the demand now exceeds the supply include associate degree nurses and practical nurses, physical therapy and occupational therapy assistants, surgical technicians, laboratory assistants, dental assistants, physicians' office assistants, inhalation therapists, medical record technicians, electrocardiograph technicians, x-ray assistants, pharmacy assistants, food service managers, histologic technicians. In none of these fields is the training capacity proportionate to the demand.

I share with you here the conviction that technical training programs must be sharply expanded, but with provisos. First, fragmented training for single occupations cannot give either the quantity nor quality of training needed. There must be multidisciplinary centers, properly staffed. Second, these centers must be planned to serve a region, and the curricula developed to meet the local needs for workers. Third, there must be planning to meet the training needs of a broad range of potential students. Fourth, training centers and professional training centers must reach out to work with each other--in assuring adequate faculties, in experimenting with curriculum and redesigning and redefining of occupations. Fifth, such centers must have close and constructive working relationships with community hospitals and other health service facilities and with the health professions.

Monday, October 3, 1966:
"The Hospital's Role in In-Service Education."

by

Dr. Ellsworth Neumann, Administrator,
Massachusetts General Hospital,
Boston, Massachusetts.

The way I like to talk is off the cuff. I find it much easier to communicate with you this way. I look at your faces and by the communication given me, I get off the subject or continue. This is a dialogue. To me, education isn't anything unless it is a dialogue. If, at any point you wish to doubt me, just raise your hand. I'd just as soon go in another direction as the one I happen to be taking.

The points that I am to cover are primarily those of motivation. We have done a lot of speculating at Mass. General Hospital in the area of motivation. We've based our plans for training on this. We put the plans into effect and then we've "reality tested" the plans. We feel that we are getting someplace.

We have statistics to prove that our corps of loyal, dedicated people keeps growing year by year. The program of in-service training, however, is only one part of a very large pattern which could be truthfully said is our personnel policy and patient-policy program.

The two, we feel, must be exactly the same. We base this on the idea that if we wish our patients to be understood, that is, supported, we have our people stand under our patients when they are in trouble. And we must stand under our employees and meet their needs.

It makes no difference to us, if when we analyze what it is our patients or employees seem to want, that their needs seem to be irrational. We must answer any irrational need in some rational way. When we are successful, the patient is the ultimate beneficiary.

It's very difficult, therefore, when you're talking about a total pattern to find a point from which to start.

I think, probably, the best way to start would be to speculate about our present culture and how a hospital represents that culture.

To our department heads and the people who are responsible for training, the hospital itself is the micro cosm of what society will be like soon. A great number of people with a diversity in age, sex and discipline, - these people must somehow work together in a team and that team must be effective.

Therefore, it behooves us as a group to look at the culture and speculate where it will be ten years from now and then see if it is happening already in the hospital itself. Usually, we investigate and find this is so. Professor McLuhan at the Montreal Institute of Technology and Culture has come up with wonderful ideas that we've found very, very practical. He points out that this is the age of great expectations. That people expect more continuously. He also points out that this is the age of information and not just information slowly given, but information with instant communication. People expect this information to reach them and in a way to be digested easily.

People expect information to reach them in a three-dimensional way. They become used to this through television. They no longer are totally willing to accept information given to them in a linear way, -through the use of books, newspapers and letters from the administration. For instance-orders. They won't pay any attention to it. We found this to be so. This is also, as he points out, the age of involvement in a deep experience. Or you can say it in the reverse way. This is the age of alienation and detachment, and the need is for instant condensed experience. As he points out, the use of LSD by our younger people not always in a frivolous way, is a perfect example of the taking up of a new method to get instant deep experience.

When you speculate about these changes in our culture, it automatically affects the way you try to educate your people. And when I talk about our people, in a vocational way, I'm talking about doctors, nurses, accountants, housekeeping people, dieticians and pot washers, because we handle every single group.

Our greatest difficulty is the doctor. He keeps showing evidence of alienation and we can't "make it" with him. But with everybody else, we can reduce alienation to almost zero. It's partially that I'm afraid the doctor feels he doesn't really have to know anything about the culture or the team work, that all he has to do is worry about the one-to-one relationship with his patient. And we agree that this is magnificent and he should pay his prior attention to the patient. But, unfortunately, while he's paying attention to the patient, the needs of the people who are assisting him aren't met. However, we will get to this over the next 30 or 40 years.

Now, there are other basic factors that we have to consider. When you motivate people, you have to consider the social forces you're working with. Now we all recognize the child rearing and the tone of the educational system to which people were subjected previous to their coming to our hospital are factors over which we have no control.

There are factors over which we do have a great deal of control. We can make sure that our people are motivated to be creative because this is necessary in our hospital. We must have change by virtue of the hospital's needs. Our hospital is a pioneering hospital. It is there to teach and not just teach the people who come through, but to find new methods through research whether it be medical, accounting, nursing, sanitation or housekeeping. We do developmental work in every department. Therefore, we must motivate people to accept change.

I think all of you will accept the effect of change. You recognize Christmas as a time of joy and getting away from routine. Even though this is a desirable change, it is exhausting physiologically.

Here in our organization, we are deliberately producing change and I think all of you recognize, who have experimented, that only one out of two or three changes are good. You make a change to reach a goal, and then decide that change is not good. And often, one change forces two more changes. Sometimes a change is for the better, and sometimes, just to get back your equilibrium to where it was before you started.

The social forces over which we do have some control are, for instance, the attitude that we show, -not just speak but show about our feelings toward commitment and dedication. There are organizations that have attitudes against commitment. At times, the Armed Forces seem that way.

We not only need opportunities for personal and professional growth, but these must be seen as opportunities. We must show that these are good opportunities and that we want people to move into them. We must show vitality in our value system. We must be able to articulate the value system. This is terribly important because this is what the young people who come into our organization are most pleased with. Durkheim has commented to the effect that suicide is often the result of anomie-the lack of a value system.

I think you can apply that to professional and career growth. If there are no values, you stop learning and you're dead professionally. You commit suicide by having no values.

What always astounds us is that as we check feed-back from all the people undergoing orientation programs in our hospital, that the talks about values and what we believe in and what they should believe in are always the ones given the highest ratings.

They say they had never learned anything like that before and they go into quite astonishing comments. When we review some of the technological improvements that we've been showing people---nothing.

But this is true of patients, too. Our patients have never in the history of MGH, sent a letter of gratitude or commendation about an operation done on them. They never thank you for any technological tour-de-force, but they comment on how the individuals react to them and how our employees react to them and their needs. And they do it group by group. They even check with other patients to see whether it's possible that other patients are getting the same treatments they are! And this is part of our feed-back program on our in-service training. The social forces can be put into effect if you want to spend enough time, and sometimes, money.

But you have to look at every part of your hospital, every part of your organization. I think you also have to recognize the creativity which has a certain amount of reckless gambling to it.

If you are financially at just a survival level, people will not be able to take chances that are necessary to create, and because the administration says, 'we can't afford it' the creativity is stifled.

There's another social force therefore, that plays a very large part in in-service training and that's whether the organizational environment stifles or releases energy. What kind of energy? This a creative or psychological energy. Do people get tired unneccessarily or do they seem to have a constantly increasing amount of energy? The work that the national training laboratories have been doing for the last 20 years all point to the fact that the irrational is the guidance force behind the rational.

Emotion is what you must pay attention to in order to guide the rational. That is, people will do what they emotionally intend to do, even when they intellectually intend not to do it.

People have built defenses around their emotions so heavily that they themselves can't tell what their own emotions are. They will give lip-service to some ethic or technique, but they will do just the opposite when they are in action.

One of the reasons for the work that's been done with the laboratory method is to get this out so you can see as a participant what you really believe. The very painful exercise is not an ego-booster, but it certainly is important. Now, therefore, our program of motivation is based on social forces with which we CAN work, -the environment, the attitude, and the opportunities.

It is further based on what we think the culture is providing us in people. We also recognize that we have a large number of sub-cultures, -the doctor, the nurse, -each of them have a subculture and we respect this because to deny it is to run contrary to the needs of the people who have been educated in these fields.

We recognize that an education provides a person with a vested interest. That vested interest is actually a basis for his continuing to go forward in a definite line of action. There is only one trouble. The vested interest also is automatically against change.

If you have a million dollars and somebody tells you they are going to put money out of business next week and use the bartering system, you're going to be against that change. And if you have invested years and years in an education and people tell you that every ten years your education will be worth only half what is was worth when you graduated, you're going to be threatened. And yet, that's exactly what is happening! We are doubling our knowledge in every field, not just the medical work, but every field, every ten years. This is particularly true in the medical field.

Fortunately, it's mostly in the technical area and this doesn't bother people too much. What bothers them is when it is in the social field.

All of you recognize we have a technological revolution obvious to everyone. Less obvious to everyone is the fact that we are having a sociological revolution riding in on top of that! As we learn from the sociologist, the psychologist, the anthropologist, we're able to see it better and guide our planning in our educational programs to fit the changes that are coming about.

We don't resist the fact that younger people are talking a different language. We recognize that we have three different languages in our hospital-the 20 year olds speak one language, the 40 year olds speak one language, and the 60 year olds speak still another one. The languages spoken are mostly different on the basis that these social concepts differ in each group. Unless someone explains to the 60 year old that what it is this young person has accepted is absolutely true, the 60 year old fights constantly against what the young person is saying and doing and we have conflict. We have to thus educate the 60 year old and our 40 year old sociologically and we have to educate our young people technologically, because the young people already fit in the culture they are in. What does surprise the young is the fact that we can have values of the sort we have, and they would like these values too. Yet, too often, they have been alienated by our very increasingly complex society where people are not treated with the dignity that they were treated with 20 or 30 years ago.

When colleges were small, you could see a professor anytime. Now, the social need of the community is more for extensive education, and the classrooms can't grow as fast as the number of students who need to be educated. And often, these kids are just standing along the walls.

This is one of the reasons for the trouble at Berkeley. The students felt that they were numbers, and when the school administration picks IBM as a help, to give a person a card, and says 'that's you.' the student is affronted. Naturally. It is an insult to this person with dignity and his feeling of significance or meaning to himself.

What we do for these young people is to tell them what their significance is. What is the meaning they have as individuals ? We are very careful to point out that they may feel they are important because they are nurses, for example, but that we can prove that some days they are ten times as effective as other days, and they will recognize this themselves.

They have the same amount of education from one day to another but they themselves vary from one day to another. Nine-tenths of what the patients get and nine-tenths of their effectiveness is based on themselves as individuals. And the uniform doesn't assist them. It is actually a barrier between the primitive roles that exist in the patient as a child and the nurse as a mother. When a patient starts growing towards maturity after a deep valley of immaturity, at that point they become approving lovers.

These are easy roles to follow, easy roles to play once they understand what it is they are playing sociologically!

I also recognize that people want to know "How?" If they can find out "how" in a speech, it is an effective speech. So I have always spent time on non-verbal communications because it seems as though nobody in the medical world teaches anything about non-verbal communications.

This is absolutely essential to a good relationship between a patient and a doctor, -a patient and a nurse, or a patient and an aide.

I tell them what it is they are saying with their posture, and facial expression and the factors which are involved in the distance they stand from a patient. I tell them how to develop formality and informality, how to get people to un-block, and I'm sure this information has helped some people to improve their ratings, because they learned something about "How."

All of us at times have a mental block. With a mental block, you can't hear. And I point this out to them so that they will know they are only going to hear about fifteen percent of what I say. You are too. There have been studies made on this.

A child in the first grade can be given a series of statements and he can return 100% of the statements to a question, because he accepts everything. Every year thereafter, acceptance goes down until about the time he is a senior in high school, he's down to hearing and accepting only about twenty-eight percent.

It must be there is a lot of non-verbal communication. It also is true that people believe nearly everything they see even though they only believe only fifteen or twenty percent of what they hear. Therefore, much of what we do in our program of education, training, orientation, and motivating is based on non-verbal communications. "Show me" - that idea.

Our decorating is based on this and our whole personnel program is tied with our decorating. The whole idea of keeping the hospital clean with far fewer people is based on decorating. When we decorate a room, we decide what psychological result we want and we work till we get that result. We "reality" test it. We have somebody listening to what people say. It can be done with a committee, which is a strange way. It is art work done by a committee-which is supposedly impossible.

To keep a hospital clean, you must not only clean it, but first you must make sure it looks clean -and a dark color looks dirty. Subconsciously, all people will throw things on dark colors and if they dislike something because it offends them, -(this is rejective) -they will tear it to pieces.

You can come up to our hospital and see one area in some temporary corridors and how the people destroyed these. People destroy what they are alienated by; they refuse to listen to what they are alienated by.

What we did to stop the destruction in these corridors was to hang pictures. Once we hung pictures, they stopped cutting up the corridors.

What I'm suggesting is that you have to give people the opportunity to have an experience. They are going to have an experience one way or another. If the experience is pleasant, the reaction will be good. "Good" means what it is, that you intend to do. If you are educating, then you want the acceptance of the ideas that you will put in force. If you are trying to keep a place clean, the method differs. If you are trying to motivate people and you want them to have more energy, the method is still different.

This in-service program is part of a pattern as you see. We feel it is good. We feel we have succeeded. We feel we are a long way from what we would like to have happen. We'd like a program where we wouldn't need to hire people. They would come and stay forever. But we haven't succeeded in that.

Sometimes it is too expensive to work in the service industry or you would starve if you stayed there too long. It is a problem. When Miss West talked about the increasing cost, I can back that up completely.

Our budget, when I went to that hospital eighteen years ago, was about eight million dollars per year. Because of good, sound, tight administration, our budget next year will be held down to fifty million. It takes money to educate. It takes all sorts of emotional supports. Part of emotional supports is "money."

Everyone would like to save money. I wish we didn't have to worry about it, but we do. People get a lot of things in life because of what they can provide for their children. They get a lot of emotional feelings about it. And you have to do things with money and we use it just the way we use space, or gifts of any kind.

It is the tone of your educational system that will determine a large amount of what happens to these people in the future. This is something over which we have no control. We feel that the people who are coming from the educational system are magnificent. The younger people are better educated than the older. There isn't the slightest question. You can prove it forty ways to the middle. You are doing a good job. We are using what you are producing. We like what we are getting.

We are a little surprised, and I think you should be, that what the young people like most, who come from your schools, is our value system.

There is no question who should tell these young people what the goals are and what we believe in. They can't always figure it out by themselves. They should be told. I wonder, do your young people know what the goals of your school are?

Do you not think they would participate better in trying to prove everything from the teaching to the acceptance. -if they knew? I must say, this was a surprise for us to find this out.

This applies to our own students as well. Our students are taught in a certain way, set by accrediting agencies, and come on the staff. We start them on giant motivation. Because of technological change, we are forced to teach constantly. We never stop. And this applies even to people who are teachers.

Miss Lepper commented on a newspaper reporter who came to ask questions in our Recovery Room in the General Operating room. The girls answered in complex terminology. They are all dealing with electronic machinery, and monitoring. She asked one girl, "How long have you been here? I am impressed with what you know." The girl said, "Oh, we have been here a year. We came from suburban hospitals and we thought we would learn some, spend a year and go back. There's only one trouble. If we go back, nobody is going to understand what we're talking above, -not even the doctors. So now, we don't know what we'll do!" They will be going somewhere, you may be sure. This is how rapidly things are changing.

Eighteen years ago, we were spending $200,000 per year on equipment. Now, we are spending over one and a half million on equipment, and there are machines I have never heard about and I have approved them. Now, we ask for letters to say what the machine does because we are too stupid from looking at the name to figure out what it is. This is the way things are changing.

Now, we have to rotate nurses through various areas that turn out to be good for general education. Out respiratory unit, which costs us $145 per day per patient is a good training ground. After somebody's been in that for a while with all these monitors and everything else, they get so adept at telling when a patient is sliding downhill, that they gain an enormous amount of self-confidence. It is like the Cardiac monitoring units.

You know, self-confidence in a professional person is worth anything. We rotate people through just to give them self-confidence. Not for the technological stuff, although once they have that they do become more confident. They have seen everything after they have been there a couple of weeks. And, the only way a patient can get into the respiratory unit is that he would die otherwise. That is the basis, for we are using twenty-five percent of the nursing manpower in Phillips House for four or five patients. We can't affort to do that sort of thing for somebody who might pull through anyhow!

I feel that the whole medical world is technological. And, by the way, we feel that way about volunteers as well as employees. We take the time to train them, and give them the same sort of thing. We are training Directors of Volunteers, and this afternoon I am to talk to them. They want to know how do you organize to get people deeply motivated, and they come just for this.

What can we provide them with technologically, that they don't already know? How do you provide an environment that releases energies, that makes for creativity, holds people, moves them forward, allows for growth, -and that means personal growth as well as professional growth. Professional growth without personal growth isn't worth anything. They are not going to get any promotions unless they are growing personally. This is pretty much the way we decide who is going to move up in the organization - their capacity for growth personally, and their capacity for change emotionally.

It is to be recognized that there are two lags in people. There is an intellectual lag that you have to get through before you can make a change. It is easiest to get through the intellectual lag. Then, there is the emotional lag. People can accept what is very rational, and not be able to emotionally accept it.

Therefore, we look to the individuals who are moving up in the organization to see how well they can take change, and how much self-confidence they have.

Then, we look for three things when it comes to whether they are going to move ahead, and that's their conviction, their commitment, and their involvement. Involvement is the emotional one. The convictions and commitments can be intellectually produced, as you well know, but their involvement is something that is emotional.

We recognize that there are factors which go against their ability to grow and change. That is, their self-doubts, their defense system, personal defense system, their physical vitality. If they fatigue easy, this is contrary to growth, and the ability to change. Apathy, anomie, all of these things are factors against their being able to grow up and accept change; or to accept change, and therefore to grow.

Our department heads are toughest on people who have no value system. They leave in a hurry! It is the only thing, just about, that you can get thrown out for, in our place. If what an employee says, and if what he does shows that he has no value system and no convictions, and he doesn't care, he is out.

He might say, "Look, I can do this job well, and I am terribly good." And we must say, "You really can't do the job. You don't care." Strangely enough, some of these people will never understand what we are talking about and there is no way to explain, if they do not know.

Perhaps this has not been too educational, but you see, no one stopped me, and I felt it might be helpful.

October 3, 1966

"Developmental Progress of Health Occupation Educational Programs-Springfield Technical Institute"

by
Mrs. Teresina B. Thompson, Assistant Director,
Springfield Trade High School and Technical Institute,
Springfield, Mass.

Introductory Remarks

The story of our Springfield Health programs is a very humble one compared to the newest developmental planning now evolving as a result of the available state and federal funding for long term scientific study and research. However, plans for any kind of developmental projects have to start with basic needs and ideas.

We must explore the realm of the unknown, with imaginary ideas that might well be woven into a pattern of dreams for the future. Naturally, this weaver of dreams would have to be a very special kind of person, one who is visionary, a leader and determined to see an idea evolve from the imaginary to the real.

Springfield had just such a person, a woman with the will power and desire to help people, all kinds of people, but mainly with emphasis on the common, every day worker.

Mrs. Margaret C. Ells, former Assistant Principal of the Trade High School, is well known nationally for her many contributions to vocational education and was selected to serve as a member of President Kennedy's Panel of Consultants in 1963. Building an educational future for girls and women was given special emphasis, and the foundation laid for future growth patterns.

Previously housed in separate and inadequate buildings, both the girls' and boys' Trade School were moved into a new building in 1941. Many people looked with disfavor on this transfer of learning of occupational skills to a modern facility. It was called the "White Elephant" of Springfield, or Mayor Putman's "Folly."

Tragically, the rumbles of World War II were not far away. The challenge of a war-time economy was soon to be faced. Trainees with special skills were in immediate demand. Responding to this emergency, the school soon became a 24 hour a day, 7 days a week training complex, training for military personnel, arsenals, and other peace time industries required to convert to the needs of war.

War production-Airborne Engineering, Signal Corps, Ordnance- trainees alone totaled approximately 8000, not counting the other thousands of men and women trained in short-unit courses to meet the needs of the total war effort.

What does all this have to do with the Health Occupations, - I mention this because here was the beginning of the first "variable" in education at the Springfield Trade High School. If this adaptation of knowledge and skills could be made for the need of a war effort, why could this technique not be directed toward another great need ... the health of our nation? The involvement of many people with the total educational process during the war brought an awareness of growth patterns via the media of vocational education.

Thus, in 1945, we saw the beginning of new directional planning for Health Education. Members of the Valley District Dental Society called the school about the possibility of starting an evening program for young women already employed in dental offices. At this time, I was the Girls' Counselor at the school. We had several meetings with the dentists to determine course needs. Subject areas requested were Personality Development, Receptionist Techniques, Business Procedures and Public Relations. My own involvement with members of the professional dental group came as an instructor of the first evening group, and member of the Planning Committee. Following a careful study and evaluation of two successful evening programs, a formal request for implementation of a one year post-graduate Dental Assisting course was forwarded to the Superintendent of Schools and the Springfield School Committee in 1947. Dentists were fully convinced that specialized training in knowledge and skills for use in the dental office would not only assist but relieve the dentist of many non-professional duties, increase office efficiency and allow more time for the increasing demand of his own professional skills.

Our first class graduated in 1948 and numbered 15. The launching of the Dental Assisting Program was our first contribution to the community need for supportive workers on the Health Team. The result was excellent placement and further inquiries for supplementary programs.

A request for training Medical Assistants was received in 1949 from the Springfield Academy of Medicine, now known as the Hampden District Medical Society. Physicians had seen our girls-in-white in dental offices, asked, "Why can't this be done for the medical office?" A similar pattern of planning evolved, but the curriculum committee soon found that satisfying the special needs and diversification of duties for the "Medicine Man's" office was almost impossible. Some wanted emphasis on office skills, others laboratory specialists, accountants, stenographers, etc. Finally, a realistic approach was agreed upon for a basic one year program that would prepare the Medical Assistant to bridge the gap between the doctor and the person needed to assist with better patient care and more efficient use of the doctor's professional skills.

September, 1949, saw the beginning of the first program for Medical Assistants with a graduating class of 15 in June 1950.

This program has served as the launching pad for several of our newer programs in health occupational education.

Constant review of medical and scientific progress, of the ever-expanding needs of health care, and of the growth of health care facilities, has kept our school personnel and Medical Advisory Committee alert to changing patterns of learning.

Additions, deletions, constant revision and an accurate pulse-taking of needs is a MUST for this program if it is to serve as a meaningful source for our physicians and other community health agencies.

Launched in 1950 was our first Practical Nursing Class. Specialists in Nursing Arts, Nursing Education, medicine and administration met frequently with school personnel to develop a program that would meet all the requirements set up by the Massachusetts Board of Registries in Nursing. Classrooms were renovated, equipment ordered on a very limited budget, students recruited and the opening date given much fanfare and publicity. But this program was not destined for smooth sailing. Too many fingers in the pie!

The school failed to meet one of the most important equipment needs required for approval. Our scheduled opening date was denied. Why? Left off the equipment purchase list was the proud and mighty BED PAN HOPPER! The program could not receive approval to start without it. Unfortunately, no money was left in the budget. We had no MDTA, ARA, NDEA or 88-210 funds for our rescue.

Students were notified of the opening delay and then began the art of begging. Imagine the academic approach to justification data seeking funds for a B.P.H!

However, expertise was developed rapidly. The Henry Dexter Funds, a charitable organization giving yearly grants to worthy projects, supplied us with the missing link, a donation for the purchase of our one and only B.P.H. Following a 2 month delay, this program started in 1950. Eleven students graduated from our first P.N. program in 1951 and were quickly and eagerly absorbed as desirable members to augment the hospital Health Team.

Initiation of our Surgical Technician program was in cooperation with two local hospitals where on-the-job apprentice type of training was being given at the Mercy and Providence Hospitals. Recognizing the need for expanded services and the changing role of the professional nurse, it was deemed advisable to discuss further implementation of this training. Correlation of theory and practice, using both school and hospital as cooperative training agencies, would produce Surgical Technicians particularly trained to serve under the direct supervision of both doctors and professional nurses.

In January, 1961, 10 of the post-graduate Medical Assistants were selected from the Core Program, for specialization and advanced studies in this phase of Operating Room Assistants. We all had misgivings as to the continuity of placement for ensuing graduates of this program. However, each year the request for trainees has exceeded the supply.

In June of 1960, our attention was called to the shortage of adequately trained hospital laboratory personnel at the city, state and national levels. Local pathologists, medical technologists and other representative hospital personnel requested that a meeting be held to discuss the feasibility of starting a school-centered training program for Medical Laboratory Assistants. Resultant was a careful study of local needs, curriculum planning and required facilities. With the school operating at peak capacity, it was necessary to seek space elsewhere.

Use of the first floor, East Wing, of Springfield Municipal hospital was requested and granted by the hospital Board of Trustees. This again was another tribute to our professional community, joining hands once again to promote educationally sponsored programs that would have an impact on the health and welfare of our people. It was also felt that the placement of the Medical Laboratory Assistant program in a hospital atmosphere would prove helpful in providing enrichment to the clinical experience. With training facilities assured, a pilot study was made and the first group of students selected for training began in Sept. 1962. Twelve graduates completed this one-year program in June, 1963. Presently, the program is still undergoing revision for the purpose of meeting requirements to receive accreditation and certification by the approving authorities. The program has been changed to 12 months and every effort is being made to meet certification standards, -not any easy undertaking for a City the size of Springfield with limited hospital facilities.

In 1964, another request for training supportive workers in the rapidly growing health field was received. This time, the focus was upon the existing shortage of trained personnel for Physical Therapy Departments. It was felt that one way to help meet this challenge would be to offer pre-service programs in hospitals or nursing homes under the supervision of the Registered Physiotherapist. Following a period of cooperative planning and organization, a Pilot Study Program was started in November 1964 for the purpose of training Physical Therapist Assistants. Our Curriculum Guide was developed under close scrutiny and guidance of leading educators, Registered Physiotherapists employed in our community hospitals, curriculum specialists and representatives of hospitals, consulting physiatrists and orthopedic surgeons.

It was unanimously agreed that the use of pre-trained Physical Therapy Assistants would be a means of further supplementing Physiotherapist services beyond present use and would economize on the time of professionally skilled personnel.

In 1965, 7 students graduated from the first pilot study program for Physical Therapy Assistants. The growth of this particular program is entirely dependent upon the availability of Registered Physiotherapists. Our school required that placement of its Physical Therapy Assistant graduates be made solely in health agencies where assigned duties were carried out under the supervision of a Registered Physiotherapists. Here again, it is strongly felt that an educationally centered program can develop in its students an appreciation for sound ethical and professional leadership. And, with hospitals and other clinical health agencies now employing six different groups of our trained supportive workers on the Health Team, the professional community was increasingly made aware of the source potential for educational growth of health technologies.

Not surprising was the next request for training in one of the newer and most emergent specialities. In November, 1965, professional staff members of the Mercy Hospital and the Springfield Technical Institute first met to discuss initial planning for training Inhalation Therapy Technicians. Dr. Cummings, the hospital anesthesiolgist, had observed several of our various student externees during their period of supervised learning experience in the assigned departments of the hospital. Noting the success of each program and practical utilization of knowledge and skills, a similar application of cooperative planning was requested for the Inhalation Therapy Department.

A review of existing guidelines from the American Association of Inhalation Therapists was studied and the Curriculum Committee developed a proposed curriculum guide, including didactic teaching and laboratory experience to be submitted for approval and certification by the professional groups involved. Approval factors are currently involved with this program but as yet not completed. A total of only five students have completed this training program. Two Medical Assistants chose to extend their advanced studies following graduation from the Medical Assistant course in 1965. Three students completed this special training program this past June, 1966, and all are employed at the Mercy Hospital.

Important to note is that, here again, the outgrowth of this program can be structured from the Core Curriculum for Medical Assistants. During the second semester, emphasis is placed on the advanced studies and technical skills that are taught in the hospital by qualified professional personnel. As facilities and professional personnel are made available, it is anticipated that this program will also expand. New concepts for adaptation to teaching methods and technical skills are now under consideration and study, by school and professional experts.

Contribution to the job market for health services made by the the Springfield Technical Institute now totals 1,288 trained graduates. Perhaps not a startling figure, and maybe just a drop in the bucket so far as contributing to the total health needs of the nation but-the significant factor is that we have long been cognizant of the need and have done something about it - not alone, but with the forward thinking and planning of a community alert to the advantages of cooperative school and hospital planning ... and active participation.

We currently have need for further expansion of training, facilities and instructional staff. We must continue to weave new patterns of dreams for the future. As we move upward on the career ladder, we have need to develop new "training systems" or call it what you may, but let us remember that the ideal is the development of the individual, -at all levels for maximum potential.

The result must be an educational process which lends individual dignity to all work, -whether it be as a common laborer, an aide, a sub-professional, professional or nuclear scientist.

What next, and where do we go from here? (Armory newspaper releases were shown to the audience at this point.)

When the death knoll sounded for the Springfield Armory, the first comment made by my husband was, "Now you have your opportunity for expansion of technical and health technologies."

This dream is now crystallizing into reality. Projected planning includes our opportunity to move into degree-granting programs and other far-reaching programs that would further alleviate the many manpower shortages existing today. Many more tireless hours of work, research and study will be needed but united we stand, and together, people like you and me will continue to strive for community action and educational improvement.

When you visit our Springfield Technical Institute tomorrow, you will see implementation of this philosophy at work. No glamorous buildings, no ultra-modern facilities, but rather an adaptation of the existing sometimes obsolete, facilities at a nominal cost to the Springfield Public School System. I like to console myself with the trite remark that "It is not the bricks and mortar that count but rather what is inside that is important."

We have strived to do the best possible under existing and sometimes insurmountable circumstances. However, thanks to our competent staff and continuous help from our State Supervisors, we have managed to not only survive, but to flourish.

Our Administrative staff, instructors and I appreciate your taking the time to visit our program tomorrow. Please do not look for perfection! We have an on-going need for improvement, -like all other vital programs, needing to keep pace with change.

Feel free to talk to students and teachers. The Welcome Mat is out for each and every one of you. I would only ask in return that when some of you get your beautiful new buildings and million dollar Health Centers for training, -please give me the privilege and opportunity to visit you.

Only with this exchange of ideas and pooling of resource information, can we hope to move onward and upward.

I am grateful for the opportunity to participate in this and past Conferences, and look forward to our discussions today and Wednesday.

Tomorrow, we welcome your visit to the Springfield Technical Institute.

Monday, October 3, 1966:

"The University's Role in Para-Medical Education"

by

Edmund McTernan, Associate Professor,
Northeastern University.

I'd like to spend just a moment seeing if we had some common ground on which to proceed here, because the title I was assigned was something similar to this: "Developing Educational Programs for Health Technicians: The University's Role" - Practically every word in that title might present some problem differences, so I thought I might take a moment in establishing common ground.

You all know better than I, that health care has evolved during the past forty years, from a one-to-one doctor-patient relationship to an exceedingly complex social phenomenon, - a large, but highly coordinated, sophisticated and cooperative medical team.

This team focuses its skills collectively upon the patient. Some members of this team need only minimal skills and abilities, but others must have highly sophisticated backgrounds. I'm sure you will agree, however, that everyone functioning in our inspiring medical centers, must function collectively in a manner we've come to think of as professional. We call it the Professional Attitude.

I'm at Northeastern University, which is just up the road here, and we don't presume to think we wrote the book on the health field, but it is a community service - oriented, large university. We are, we think, the second largest non-State supported university with some 35,000 students in our various campuses, full and part-time.

We are somewhat unique in that we don't have a University Medical Center, but we do affiliate with practically every hospital in Boston, including Tufts University and we have a lab training program with students across the street in the Medical Center. The Dental Assistant program that was referred to earlier in this program, is a cooperative Northeastern-Tufts University program. We have almost 140 students per year, I believe, in training as dental assistants... In almost every one of our programs, we affiliate and coordinate very carefully with the established medical community. Generally, we give the didactic work, and then we send the instructors right along with the students into the clinical situation. The clinical people have part-time faculty appointments, so we get a very close coordination.

It might be well to review the generally accepted roles of health agencies in the community. I said, "Health Agencies" instead of hospital, because there are other types of health agencies, though those of us who are in hospitals sometimes forget that. Of course, the first and primary focus is patient care. You might call it more broadly, "health care." The second focus, hospitals and most health agencies claim is teaching. This is a very broadly defined term. It's not only teaching people skills, but even more so, teaching patients health education in its classical sense.

I have to be frank and say I have administered both teaching and community hospitals. Sometimes, in some medical centers, it is pretty hard to keep the focus on the patients, where medical education is going on intensively. This is an important aspect, particularly in teaching hospitals, however all hospitals provide some teaching and some training.

The primary focus, though, I feel, should be patient care, and then, research.

The university, on the other hand, sees education as its primary focus, not its secondary focus. The question is, "Is training education?" This is where we get into trouble with our faculty, because I imagine that most universities function as we do. Every program that we offer has to be approved by the faculty as educationally sound. Some faculties - and this is true all over - are not always the most futuristically oriented group... Some universities see community service as a secondary role, and Northeastern and many of the urban communities with urban universities are moving into this aspect very rapidly.

We have a President at Northeastern who is a dynamic man, and anything that the community group can convince him is needed, we move into if he had his way, unless the faculty is too resistant. We actually have a fairly cooperative faculty. But this aspect, a university commitment to the community is very strong with us.

And, finally, research. By combining our resources with the health center's resources, we can make up for some of our deficiencies and add some of our resources to the training programs.

First, we do have some resources. We have educational space that is well planned and equipped. We have some fine audio-visual specialists' departments, with not only equipment, but know-how that we can draw upon on very short notice. In a hospital, we would have to plan for weeks to get this kind of support. We have educational competencies. We have the teachers - that is if they haven't all perished because they haven't published.

But, some teachers still remain in Universities. They are very helpful, very supportive, not only in having the specific knowledge, but also in helping the rest of us to become good teachers. And then, we have the supportive personnel, the audio-visual specialists, administrative personnel, finances, and so forth.

And then, the universities and colleges are seen as educational institutions. If a graduate says,'I trained at Harvard University' when he goes to California to get a job, people know that this is an educational institution. Whereas, if he says, 'I trained at West Overshoe General Hospital', that might not be as well recognized, particularly, if some of the new and emerging specialities come from that lesser known hospital. And if these new specialties do not have registration rules as yet, you can see what this would mean.

Some of the deficiencies of the university are apparent, also. We don't have all the clinical competencies we should have. We don't have a functioning health team and practitioners. We don't have all the clinical resources we should have.

Therefore we develop a network of affiliating agencies. Our x-ray program draws on some 44 different hospitals. It's a very big program. We have about 200 students a year in that program. The hospitals have the clinical reputation, which the university lacks.

What I'm trying to say, perhaps, is that it is not all roses in trying to bring a one-year program into a university setting. By combining them both, we get both educational and professional respectability, maximum strength, and often a much larger enrollment, on a more economical basis than we could in operating two separate programs. I'm not really here, I understand, to sell Northeastern University, but we do have some twenty different programs in the allied medical sciences, and these range from master's programs and a doctorate in Psychology. Doctors are developing undergraduates and non-credit programs. We have both full and part-time students. I suspect we must affiliate with over 100 hospitals. There are, incidentally, about 120 hospitals within ten miles of us right now. It's a hospital intense area.

I have available some literature, in case you're interested. One of them was published about a year ago, 'Northeastern Business Topics' - and talks about our health programs a little bit. It also deals with our co-op plan. What people mistakenly call the Antioch plan is really the Northeastern Plan. We're entirely on the co-op plan of education in our day programs. After the Freshman year, the youngsters spend four additional years, if they're working for a Bachelor's degree, alternating twelve weeks of study with twelve weeks of work in a job related to their institution.

As an example, I might mention the School of Nursing. We have an Associate Degree Program. Because the co-op plan takes three years, it is somewhat different from a regular two year program, in this way. Students come in, and spend a full time year in study in the university, and in our nursing arts' lab, and so forth. Then, they alternate for two more years, as a worker in a hospital. Now, when, they are a worker in a hospital, they get paid a salary. They work as workers, supervised by the hospital people. Then, they come back for their next term of study, and by splitting each class in half, you have the same number in the hospital, and we have the same number in the school all the time. This provides extra time for students to build skills in the clinical area. The students and the hospitals are enthusiastic about this.

And incidentally, it so helps the Daddy who can't afford to send his daughter to college; because she can live at home, she can get up enough money to get her through her freshman year. And she can earn her way enough to get through the rest of school, and this is true of any of our Bachelor's programs, in fact.

I also have a little booklet. This is available. The Northeastern University Division of Allied Medical Sciences. This gives a thumbnail description of each of our programs, with the exception of two we initiated this Fall: Medical Records Science, and Middle Management in Health Agencies. Other catalogues or specific curriculum programs are very available through the mail to anyone interested. Everyone of these twenty programs, however originated from an express need in the community.

The Medical Record Program is another good example. The Mass. Association of Medical Records Librarian came to our President and said that there is not a training program in New England for Medical Records Science, and that this is a career short field, so he told me to investigate it and take a positive attitude about whether or not we could do this. And now, we have a functioning program about one year later.

And we are trying to make it possible for the girl who's working in the department, and has been unable to get the training, to go through this program on a part-time basis.

When we get a request for an express need, we explore the market. How many people are needed? What is the cost of the program, and what resources are available in the community? If it looks good, we move into a developmental program on the curriculum, working with the professional group, if possible.

Then we've got to find the money, which is not always easy, and finally, the program is initiated.

Let's talk for a moment about 'Soft Money.' Some of the programs are on federally supported funds, and all of them are great, - still we think it is a bit dangerous to build a program entirely on soft money. If you can build a program, and then double the enrollment this way, this is fine. But, a case in point is our dental program.

We had 140 students set to go, and about four days before they were due to enter, Congress had still not passed the appropriation which would give the money to the Federal Government, which would give it to the State to match for us. And we had secretaries on the phone calling 140 girls, saying, 'Look, we are sorry, but we don't have the money to begin school on Monday.' And this is pretty tough. Well, we scrounged around, and because of the resources we do have, we were able to get about 120 of the 140 eventually able to come in. So this is what we call 'soft money.' I hope nobody is offended by the term. This is wonderful to have, but rather dangerous to build the foundations of a house upon.

The second area is Research and Experimentation. We do have the freedom, theoretically, to conduct broad scale interdisciplinary studies in experiment with intra-disciplinary program approaches. There's a young fellow in the audience from our university who is engaged in a research project to study the total needs for para-medical personnel in New England. He can approach it from a social scientist's view, where if I were a social worker, I would look to find out how many social workers were needed. If I were a nurse, I would look to see how many nurses were needed. These people have the freedom to say, 'What are the jobs that have to be done?', and this is necessarily the thing to have the social worker do, or the nurse do. It's a broader scale.

Any of us who get involved with the accrediting and licensing problem know what this is. Doctor Scudder has been interested in watching and working with a program at Duke University, training Physicians' Assistants. And we are interested in it too, but what's going to happen with the Medical Practice Act or the Nurse Practice Act? All these questions come up. So, even the big universities don't really have as much freedom as we like to think.

And then, the big issue is, the need to teach the teachers. A man might be a magnificent medical technician, but he's a terrible teacher. We have all sat through boring lectures and not learned what we should.

This is a tremendous need that we have seen. And you've all seen the need for teachers to work in the health training program. We're exploring this. But, we haven't done a whole lot for it yet.

From what's come out, thus far at this conference, is that we certainly have a need for people. THE BIGGEST NEED IS FOR THE PEOPLE TO PREPARE THE WORKER.

Those were really the three points I had to cover. The other thing that we are trying to do that is important is to make it possible for the people who can't give up work, or who can't find funding to study full time, to be able to study part-time.

I would probably be driving a truck if it were not possible to work as an LPN and go to school part-time. Then, I went on to the next step. It worries me that you hear a lot of people say that unless you are a full time student, it is not a valid experience. This is educational nonsense because it discounts the great fact that the adult student who comes in the evening has great motivation. He may be fatigued, but he's like the man who gets home tired, and who is invited out to a party, and gets his second wind. These people come to us, thousands every night, and have terrific motivation. You can't coast in the classroom with these adult students who study. You can coast with the kids, but not with these adults. Kids often just want their credits, to get out of school and go to Vietnam. These adults are earning their money to go to school. They are really sacrificing to make this, and it bores me to think that things like Education are practically impossible at night. It is impossible, almost, to prepare at night to be a teacher in some of our fields, too.

The other point is the ladder approach. I wish something could be done for the LPN to move one or two rungs up the ladder to make an R. N., and the two year R. N. to be a three year R. N.

I was at a conference a few months ago, and somebody got up and talked about the girl who is worthy of being an R. N. Then, there is the girl who is worthy of being a practical nurse. Thus, you put them in little pigeon holes, and you lock them in and don't let them move. And I think it is educationally sound to develop ladder approaches so people could move up in the field.

And this, I think, is going to attract people in - this opportunity for advancement, not just to become an XYZ - but to go on for the rest of your life, if you can.

I would like to conclude with a little quote from John Dewey, and he was writing about the Child in the Curriculum in 1901, and I think we ought to read him today. He's more read about than read. In "The Child in the Curriculum", here is a message that I think is significant today.

He said, "Any significant problem involves conditions that for the moment contradict each other. Solution comes only by getting away from the meaning of the terms that is already fixed upon and coming to see the conditions from another point of view, and hence in a fresh light. But this reconstruction means travail of thought. Easier than thinking with surrender of already formed ideas and detachment from facts already learned is just to stick by what is already said, looking about for something with which to buttress it against attack.

Thus sects arise: schools of opinion. Each selects that set of conditions that appeals to it; and then erects them into a complete and independent truth, instead of treating them as a factor in the problem, needing adjustment."

I think it is very significant in this business of constructing new careers in health and new patterns of advancement in health. And I think maybe we all ought to go out and buy a copy of The Child in the Curriculum.

Monday, October 3, 1966:

"Junior College Programs of Preparation for Health Technicians"

by

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Kellogg Foundation, Battle Creek, Michigan.

Hopefully, out of what is said here in the next two or three days, we will make some impact on the development of health manpower which is going to be so important to delivery of health services to our national population.

I would like to try and cover, as was requested, two or three of the most promising developments in the community college effort rather than to try to give you an over-view, as I have sometimes done. We shall try to discuss these, because some of the more significant instructional and curriculum developments that seem to be shaping the course of education for health technicians are taking place in the Junior Community colleges, and this is the particular segment which I was asked to discuss.

From the many possible choices, I have chosen to talk about three: (1) The Core Curriculum, which we heard a little about, from our previous speakers; (2) Some joint planning activities that are taking place between university medical centers and two year colleges; and then (3) some of the new uses for the autotutorial laboratories. Now, as I say, I don't want to try and cover the entire field. My intention is to indicate that educators in the health field should be aware of these trends and should determine what significance they have for programs under their jurisdiction. And, if my remarks should stimulate a discussion and analysis of individual programs, then I think they will have served their purpose today.

An often-discussed topic, when educators in the occupational fields get together formally, is the desirability of developing a Core of educational experiences for clusters of related occupations. You heard about the Core which they are developing at Springfield. The notion seems to possess what might be called "instant validity." There certainly must be broad commonalities of skills and knowledge in business related occupations, engineering related occupations, and health related occupations. Or so, logic dictates. But when curriculum builders begin the task of turning the Core concept into a workable program, it is soon evident that there are many considerations that make this a formidable undertaking. To look at some problems, tentative solutions, and plans for testing proposed innovations relating to education for health technicians may help provide some insight for others who wish to undertake their own study of this really fascinating curriculum problem. Now, identification of the problem to be solved is relatively simple. That is, compared to solutions, anyway. Let us take an educational institution that undertakes to prepare health service technicians in the field of, say, dental hygiene, environmental health technology, nursing, bio-medical engineering technology, medical records' technology; let's say they are going to prepare in these fields.

Now, they would benefit if they could: (1) Utilize faculty more effectively by teaching all students who will enter these six health fields in courses that cover material common to all the occupations; (2) Recruit students for the health field in general, and then delay, for at least a semester, a decision regarding which field best fits the students' interests and aptitudes; (3) Relieve high school counselors of the almost impossible chore of keeping abreast of the details of newly developed health fields, by rather, asking them to counsel students broadly regarding opportunities in the field for health services technology; (4) Provide an opportunity for the college faculty to observe, evaluate, and counsel students before the student elects a specific health field; (5) Provide students with a better perspective of the several health fields on which to base their decision to pursue a particular course of study.

Now, given this raison d'etre for a Core program for health technicians, one study group set to work on identifying knowledge and skills common to a variety of health technologies. In the interest of brevity, the knotty problems, and philosophical disagreements, I won't go into. However, one word of caution might be appropriate. Such a study group must be on guard for apparent roadblocks that are, on careful analysis, simply related more closely to the maintenance of "guild rights" of the occupational groups. You all know what I'm talking about. Obviously, there must be a philosophical agreement on the need - as part of an occupationally oriented program - for general education. Curriculum planners, should, early in their deliberations, reach consensus on the desirability of providing students with technical knowledge and skill, combined with broadened background for enrichment of their private lives, as well as their public lives as participating citizens. In the course of providing students with technical knowledge and skill, the future workers, as individuals, must also be considered.

Now, the following outline is illustrative of a comprehensive core curriculum, a core program pattern for a first college semester for health service technician students who will enter their specific occupational goals in subsequent semesters. Now, remember, I'm talking at the Technical Associate Degree level in a two year community junior college.

(a) A course in Human Anatomy and Physiology, which would be a general course, which should serve as a framework for building medical vocabulary, in addition to providing a base upon which specific health technology specialties will build.

(b) Psychology, or Sociology selection will probably depend on individual college schedules. Most colleges offer one or the other, but health technology students will eventually study both subjects sometime during their total program. This too, will be a general education offering.

(c) Language arts. Selections of courses from this description should concentrate on strengthening students' reading comprehension, writing, and verbal skills.

(d) Mathematics, or elective selection from general education. Mathematics, per se, should not be mandated, because it will not be known how much, or what kind of mathematics courses students will require. Much will depend on the students' experiences in secondary schools, and upon their tested needs.

(e) And finally, the Basic Health Technology. This would be a technical course, content of which crosscuts the major health technology specialties.

Now, obviously, this basic core of study relies heavily on the technical Core course, which I've entitled, Basic Health Technology. So, therefore, the following framework for development of such a course I will outline to try and clarify what I'm talking about.

The course in the Basic Health Technology is designed to introduce students to a broad spectrum of career opportunities, and to assist the student to select the specific career for which they have demonstrated interest, ability, personality, and character. Content has been selected to provide students with a foundation of knowledges, understandings, and skills common to a variety of Health Service Technologies, to serve as a base from which special technologies may depart. Now, the course content has been developed to enable students to: (1) Become oriented to and gain general understanding of health services resources; (2) Gain understanding of and experience with team relationships; (3) Become acquainted with health field ethics; (4) Gain knowledge and understanding of Pathophysiology and Pathopsychology on a very elementary level, incidentally, in the Core curriculum; (5) Understand how diseases are treated; (6) Develop skills in maintaining environments conducive to patient welfare.

Now, those are the objectives. What are the knowledges and understandings that you will try to develop within these students that take the Core curriculum, and how, is the question. What is your ultimate goal here?

Well, first an understanding of: (1) Health service resources, their interrelationships, functions, and activities, and so forth; (2) Interpersonal and group dynamics; (3) Medical team relationships; (4) Medical terminology and vocabulary; (5) Legal and ethical responsibilities relating to health services; (6) As I indicated before, Pathophysiology and Pathopsychology; (7) Diagnostic techniques relating to health care; (8) Therapeutic techniques relating to health services, and health care; (9) Record-keeping relating to health services; (10) Principles of asepsis, sterilization, disinfection, and antisepsis; (11) Selected emergency first aid procedures.

What skills could we teach in this kind of course?: (1) Observing, reporting and recording; (2) Determining temperature, pulse, respiration and blood pressure; (3) Moving and transporting patients; (4) Working with patients who are receiving special treatments; (5) Working with patients who are unconscious, hyperactive, hypoactive, in shock, in pain, bleeding, moribund, and so forth; (6) Effectively communicating and working with patients who are normal, young, aged, physically and emotionally handicapped, and so forth; (7) Achieving and maintaining aseptic conditions; (8) Maintaining isolation techniques; (9) Achieving optimum environmental conditions conducive to patient welfare, that is, lighting, ventilation, and the like; (10) Working with members of the medical team; (11) Performing selected emergency First Aid procedures.

Now, several community colleges offering three or more different programs to prepare health technicians plan to introduce the Core curriculum concept to provide a practical test of what, at this point, is still a theoretical scheme. Difficulties inherent in putting such an educational plan into operation have been identified, and the colleges are aware of these obstacles. One of the obstacles is that of the programs leading to state licensure. These educational programs, such as nursing, dental hygiene, have a certain sequence and structure that is frequently rather rigidly fixed. Official waivers for experimentation would need to be obtained from licensing authorities in these instances. Another obstacle is that the same kind of leeway for experimentation would need to be obtained in selected instances from accrediting bodies. We've heard that before about registries and other professional approving authorities. Third, students already firmly committed to a particular vocation may bridle at the one semester delay in receiving instruction that has a more direct application to their chosen field. You know what you hear, 'I came here to be a nurse, when do I start nursing?'

Fourth, scheduling for learning experience in clinical facilities, always a difficult procedure with any large number of students, will present an even greater challenge. And then, finally, the existing pattern of general education courses within the college will need some reorganization. Exchanging comfortable old shoes for a new pair yet to be broken in is no less painful for college faculties than for other groups. There are broader implications underlying this as yet untested concept of the Core curriculum for the health field.

This is a paper that I had prepared to try and give some of the details because so many institutions have talked about the introduction of the Core curriculum. Meeting last week with one of the many committees that are trying to develop guidelines for the future of health service workers, education in this country, this came up over and over again. 'Can't we develop a core of some sort?' they said. This paper might be a start.

This is an extension of the kind of thing that is being tried in a couple of places in New York State and a number of other areas, and you might want to discuss this in some detail in your study groups.

Now, a promising movement, still in its formative stages relating to the joint efforts of the community junior colleges, and university medical centers, those that have schools of allied health professions, or some organization of this sort is a kind of comprehensive program to provide for the education of a broad spectrum of health personnel. This should provide a broader program than either institution could undertake independently. Recognizing that we have not yet developed a generally accepted vocabulary for identifying levels of work in the health field, I would like to propose my own terms for the purposes of this discussion. Perhaps we can talk about a continuum running from an Aide level, —let's use that term for this level, —an Aide level to a Practical Assistant level to a Technician, to a Profession. And then, I would equate these roughly to these educational requirements. The first one, that is, the Aide level, to on the job. The second one, the Practical Assistant to Vocational schools, Regional Vocational Institutions, and so forth. Three, the Technician to a community junior college. And four, the Professional, such as an Occupational therapist, Physical Therapist, Dietician, and so forth, —on the Baccalaureate level. Now, such a framework is controversial and certainly has the usual hazards associated with generalizations. But, however, in some such context, university medical centers and community junior colleges are, in a few areas, working together to identify their joint responsibilities in serving this occupational spectrum. Now, I have one visual device; it is a pamphlet that I wrote some time ago called 'Education for Health Technicians, and Overview.

In it there is a chart, the Theory Skill Spectrum, that I have used frequently to try to describe what we're talking about. The Theory Skill Spectrum again has the danger of being a generalization. But, as we move on up here from the aide and the orderly level to the practical assistant, to the technician to the Baccalaureate, or the Professional, you see that there is an increasing amount of background knowledge as you go on up the scale, and less in the motor skills.

And the two institutions, the community colleges and the medical centers have tried to parcel out the work between them. The two educational institutions, (talking about now the university and the community college), have not only agreed to accept the responsibility for specific educational roles, but they are working out a symbiotic relationship. Again, I slip into dangerous generalization, but one pattern that is emerging is to divide roles up as follows. The community junior college does these things:

1. Recruits students for the health field and counsels in the technical or transfer programs in the community college or baccalaureate programs in the university.

2. Offers both technical programs and specially tailored transfer programs geared to the university upper division programs.

Now, let us consider in the university, a college of allied health professions. This institution does these things:

1. Provides clinical facilities in the university teaching hospital for community college students, when possible.

2. Offers baccalaureate and graduate programs in the health field.

3. Prepares in conjunction with the university college of education community college teachers in the health field, and I'm not going to dwell on this. But, we know that the underlying problem with all of our expansion hopes and dreams is how are we going to get the instructors for these programs?

We now have a few areas, as I've indicated, where the university and the community college are planning together. Now, can we add the high schools or vocational schools, and the health facilities that are preparing on the job and still carrying programs? So that all institutions running this whole hierarchy here, that I indicated in the theory skill spectrum, from the aides and orderlies to the professionals, will have an opportunity to have a place in the total framework of planning. Then, jointly with the other groups in the community concerned with their problem, education and training from aides to professional practitioners, and teachers, can be planned effectively to properly utilize all resources available to a community.

The third development I said I would discuss is one of auto-instruction (i.e., -self-instruction). Rather than go into detail, I would just pique your imagination, and hope you are interested to investigate more into this on your own.

Some of the most exciting developments for the preparation of health personnel are taking place in the community junior colleges. Two examples may serve to indicate the type of teaching innovations that are being introduced in many institutions. In order to take advantage of newly developed hardware, and auto-instructional technique, community junior colleges are providing opportunities for students to supplement conventional instruction practices with self-instruction kits or units.

This type of innovation seems to be particularly helpful in relation to learning and perfecting skills which must be used in a clinical setting. In one college, a number of Self-Instruction Units have been installed to permit students on their own, to develop the skills first presented in general class sessions.

Small cubicles are furnished with necessary tools of the trade, which depending on the student's major, might include such items as forceps and sphygmomanometers, and, perhaps, students can use patient monitoring or laboratory technology equipment.

The heart of the self-instruction units are cartridge-loaded, continuous looped motion picture projectors. I'm sure you've all seen these by this time. They've come into general use in the educational field. These units can easily be operated by students to have demonstration lectures repeated as often as desired. It would be good to try to visit one such unit.

One of them is at Henry Ford Community College in Dearborn, Michigan. The opportunities here for students that haven't quite gained that self-confidence that they should have when they first go into the clinical setting to practice these skills with patients, not to have to go back to the instructor to get the skill reinforced a little bit, they without anybody making a value judgment on the speed with which they learn, may go into a cubicle to see the demonstration lecture as many times as they want. They may turn it on and watch it and then work with the tools until they begin to feel some facility with these things before they are introduced into the clinical setting.

Now, a second example of self-instruction related to clinical practice is the growing use of video-tape recording playbacks.

The recent spectacular slashing of costs with a simultaneous improvement in quality of video cameras and video tape recorders, has enabled colleges to employ this medium for self-analysis by the student. This can be checked out through your supplier. The cost has been cut one third in the last three months, I think, and the equipment is better. It is fantastic what is happening here!

Here is a way in which a system for recording has been devised for the student which permits him to review his own performance in the way he is providing care for patients.

This technique should be making an impact on the insights students are able to bring to their efforts to improve their ability to provide safe, efficient care for patients.

Now, let me just say a word about what we're facing in the way of growth of these educational institutions that I've been talking about, the community junior colleges. More than 190 new junior colleges are in various stages of planning and development, with the likelihood that most of that number will open by 1970. 190 more!

About 40 new junior colleges opened their doors for the first time in September of this year. All of this means that almost 1000 junior colleges in this country will be in existence by 1970.

If these colleges continue to develop health related programs at the rate they have in the past few years, we will have, to say the least, a formidable job on our hands to assure that these institutions develop programs of quality.

They represent a great opportunity to help alleviate a manpower shortage in the health field that has reached crisis proportions, but they could also compound the problem if they do not develop sound programs.

Many leadership groups are aware of this problem. Perhaps the three efforts that may provide the most immediate gains are:

1. The new university programs for community college teacher preparation for the health field. Many of these are for the nursing instructors, but at least two universities are preparing community junior college instructors for x-ray technicians, occupational therapy assistants, and medical record technicians, in a number of other fields.

2. The American Association of Junior Colleges and the National Health Council Committee are currently working on

guidelines for establishing new programs for health career programs in community Junior colleges.

3. The recommendations of the forthcoming report of the Surgeon General's Subcommittee on Allied Health Professions Education. I think that this should hopefully provide some guidance for the rapid growth that we know is coming, and we hope that we can keep on a sound basis.

Finally, if you haven't studied and thought about the implications of it, take another look at the Allied Health Professions' Personnel Training Act of 1966. It's going to have an important impact on this whole development. The hearings on the Bill, I think, will probably start tomorrow and the chances are that it will be a law in this session of Congress.

Now, various units of the Federal Government, private foundations, such as the one which I represent, and national organizations such as the American Hospital Association and the American Medical Association are all trying to assist. Before the job is done, we may need all of this assistance and a great deal more.

The key question, and the one which I think is pertinent to your study groups, is how can we work most effectively with all these groups to help assure that we have the right quality and quantity of personnel as rapidly as possible.

Wednesday, October 5, 1966:

"Methods of Funding Educational Programs for Health Technicians"

by

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for Program Planning and Development,
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U. S. Office of Education,
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"We must look to the future in planning to meet the health manpower requirements of the Nation. Unmet health needs are already large. American families are demanding and expecting more and better health services. . . If we are to meet our future needs and raise the health of the Nation, we must improve utilization of available professional health personnel; expand the use and training of technicians and ancillary health workers through special schools and under the Vocational Education Act and Manpower Development and Training programs; expand and improve training programs for professional and for supporting health personnel; plan ahead to meet requirements for which the lead-time is often ten years or more."*

These are the words of President Johnson's health message to the 89th Congress in January 1965.

The first interdepartmental conference dealing with training workers for health occupations, particularly the training of auxiliary personnel, was held in Washington, D.C., February 1966. The "Conference on Job Development and Training for Workers in Health Services" was sponsored jointly by the U. S. Department of Labor and the U. S. Department of Health, Education, and Welfare. Nearly 300 participants representing government and voluntary agencies, professional societies, universities, medical schools, unions, and other organizations interested in our Nation's health manpower met to discuss various ways of meeting our present and future needs. In an address before the conference, the Honorable Francis Keppel, then the Assistant Secretary for Education, Department of Health, Education, and Welfare, said that an estimated increase of a million individuals (above present totals) in all the health occupations will be needed to meet our national health manpower requirements up through 1975. This means we must develop an average of nearly 10,000 new workers per month in the health services alone. Mr. Keppel said that we have done a better job of providing professional training for persons than we have for health workers and auxiliary personnel below the baccalaureate level, and that at present, a "more immediate and crucial need is the development of the supportive health workers who must fill the chinks between professionals."*

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* "Advancing the Nation's Health." President Lyndon B. Johnson's Health Message to the 89th Congress. January 7, 1965.

Our purpose here today is to observe the Springfield Health Occupation Program — a program that was conceived and developed as one way to meet health care needs and to increase employment opportunities. We can study this model program and use what we learn to help in developing other health manpower training programs. Each of us can learn from the experience of others. If the people working in health and education are going to supply 10,000 trained people per month, several reliable educational patterns must be developed and implemented very soon. During the course of this conference, curriculum content, objectives, subject matter, and formal classroom and experience-centered activities will be described. A series of slides will be shown that will depict the educational activities of students in the experience centers.

Very often we discuss advances in educational programs only in general terms. I would like to bring to your attention some specific provisions for educational programs and some areas in which training is offered. Let us look briefly at some Federal legislation that deals with education.

The Health Amendments Act of 1956 amends the George-Barden Act by adding Title II, which specifies that vocational education in practical nurse training be included under the George-Barden Act and which authorizes a sum not to excel $5 million a year for grants to States with plans for practical nurse training programs. The Title was originally for five years, but in 1961, it was extended to June 30, 1965, and now has been made permanent legislation. Title II grants include "vocational guidance in connection with any such health occupations program and the in-service training of teachers, teacher-trainers, supervisors, and directors for any such program."

In fiscal year 1964 under the George-Barden Act (Titles I and II), 67,031 persons received training for occupations such as a practical nurse, dental assistant, dental technician, dispensing optician, medical assistant, medical laboratory assistant, nursing unit manager, occupational therapy assistant, operating room assistant, physical therapy assistant, x-ray assistant, or nurse aide.

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*"Training Health Service Workers: The Critical Challenge" Proceedings of the Department of Labor, Department of Health, Education, and Welfare Conference on Job Development and Training for Workers in Health Services, Washington, D. C., February 14-17, 1966. Pages 11-15.

The Vocational Education Act of 1963 authorizes Federal grants to States to assist them in providing occupational training for persons of all ages in all communities, to fit them for gainful employment as semi-skilled or skilled workers or technicians in recognized occupations that are not generally considered to be professional and that do not require a baccalaureate degree or higher degree. It extends the provisions of the George-Barden Act regarding practical nurse training indefinitely.

The rules and regulations covering the administration of vocational education activities under Federal legislation define the health occupations as those that, "render supportive services to the health professions such as nursing, medical, and dental practice, all of which are concerned with providing diagnostic, therapeutic, preventive, restorative and rehabilitative services." These include, "occupations that require basic understandings and skills required in giving nursing care or other health services to people."

The Vocational Education Act of 1963 has made it possible for the States to expand their vocational and technical education programs. In fiscal year 1965, $5,349,678 in Federal funds were used for health occupations training programs. States matched the Federal money with State and/or local funds in the amount of $14,354,499 — or about $5 of State and local money for every $2 of Federal money. State reports for fiscal year 1965 show total enrollments for health occupations under vocational funds to be more than 75,000 students. Teacher education programs that were offered in 87 colleges and universities served 750 teachers in health occupations. Federal vocational monies were used by 144 junior and community colleges for health occupations training programs. At the close of fiscal year 1965, 208 new facilities were under construction that will provide health occupations training for an estimated 4500 students. Of these 208 new facilities, 43 are in junior or community colleges. Rapid expansion of programs in community colleges has been taking place following the announcement to the States in October of last year that the Commissioner of Education had determined that associate degree programs in nursing are eligible for funding the Vocational Education Act of 1963. Many States have indicated that in fiscal year 1967, they will double their present effort.

Training programs for dental hygienists, medical secretaries, and associate degree nurses were offered for the first time in fiscal year 1966. Not all the reports and figures for fiscal year 1966 have been received from the States yet, but we expect the number of programs eligible for these funds and the number of trainees enrolled to double the 1965 figure.

Under the Manpower Development and Training Act of 1962, as amended, institutional programs of health occupations training are funded through project grants for unemployed persons who are referred by public employment offices for job training. Under MDTA almost 47,500 (actual figures: 47,473) persons have attended refresher courses for registered nurses or have been trained in such occupations as a dental assistant, dental laboratory technician, dietary aide, electroencephalograph technician, embalmer, first aid attendant, home health aide, medical service housekeeper, hydrotherapist, inhalation therapy technician, licensed practical nurse, medical laboratory assistant, medical records technician, medical technician, nurse aide, occupational therapy aide, orderly, physicians and dentists' assistants, psychiatric technician, surgical technician, veterinary hospital attendant, ward maid, or medical service x-ray technician.

While no funds are set aside specifically for school health activities under the Elementary and Secondary Education Act of 1965, State allotments may be used to support health advisory services of State departments of education and a variety of health services in local school districts.

Title II of the National Defense Education Act of 1958, as amended, provides loans to students in institutions of higher education. Students pursuing curriculums for other than nursing in any of the health occupations at the community college level, or in senior colleges, may participate.

Under provisions of the National Vocational Student Loan Insurance Act of 1965, the Federal government insures loans made to vocational students for the purpose of enabling the students to prepare for gainful employment in a bona fide occupation.

Training programs under the provisions of the various vocational education acts are administered by the Division of Vocational and Technical Education in the United States Office of Education. Training programs under the provisions of the Manpower Development and Training Act of 1962, as amended, are administered by the U. S. Department of Labor and by the Division of Manpower Development and Training in the U. S. Office of Education.

Section 4 (c) of the Vocational Education Act of 1963 requires that ten per cent of all funds allocated for vocational education be used to support a broad spectrum of research and development programs designed to help present and prospective members of the labor force acquire the basic knowledge, skills, and personal characteristics necessary to ensure continuing and satisfying work careers. These research and demonstration programs seek to strengthen the vocational education capabilities at every level, with emphasis on the needs of young people from economically depressed communities who have academic, socioeconomic, or other handicaps that prevent them from succeeding in regular vocational education programs. The programs have been guided in part by a Technical Advisory Committee made up of leadership from the labor, industry, and the educational community, and a Curriculum Development Advisory Committee made up of leadership from the curriculum development field.

Support for research and development in adult education may be provided either under the Vocational Education Act of 1963, or the Cooperative Research Act — depending on the purpose and intent — and is administered by the Division of Adult and Vocational Research in the United States Office of Education. Funds are available for research projects on such subjects as job analyses, forecasts of employment potential, the development of new occupations, the identification of common curriculum areas for the maximum use of facilities and teaching efficiency, the development of area training centers in health occupations, experimentation with staffing and programs of area training centers, the preparation of health career information, the development and testing of economic models and collection of data for educational planning and career planning, the evaluation of training programs, and the investigation of accreditation and licensing problems. Special emphasis has been given to the discovery of new career opportunities within the paramedical fields and the development of educational programs for these occupations.

To qualify for Federal funds, a proposed research activity must meet several criteria. It must be concerned with educational training, be original, be innovative, be applicable to more than one geographic area, and be directed toward communicable results. First, the need for trained workers must be established and then the training programs funded under these Acts must be geared to meet the labor market needs. Information obtained from surveys of resources and needs for health manpower is required in order to determine the types of public vocational education that should be provided.

The following nine research programs are cited as examples of the range of activities undertaken. It may be of interest to note the initiating institutions.

1. Title: A Community College Health Careers Project to Develop and Strengthen Education of Health Service Technicians.

Institution: The Board of Regents of the University of the State of New York, Albany, New York 12224

Objectives: To develop curriculum guidelines for educational programs to be offered by community colleges for the training of health service technicians. To plan and inaugurate new teacher-training programs for instructors and coordinators of community college programs for health service technicians. To establish pilot programs in selected community colleges utilizing the guidelines developed by the project study groups and the instructors prepared by the project teacher-training programs. To assist employers of health service technicians to plan orientation programs for the new community college graduates and to develop evaluation instruments for determining the on-the-job effectiveness of new graduates. To undertake a follow-up study of community college graduates on the job. To make recommendations to community colleges concerning curriculum revisions or modifications based upon the results of a follow-up study of graduates. To provide an administrative and curriculum manual for two-year colleges wishing to develop programs for the preparation of health service technicians.

2. Title: Pittsburgh Technical Health Training Institute Demonstration Project.

Institution: The Pittsburgh Board of Public Education, Pittsburgh, Pennsylvania.

Objectives: The objective of the demonstration project is to test and demonstrate in a pilot program the feasibility, economic soundness, and educational benefits of a uniquely conceived concept for training the health service occupations which incorporates: a core concept, innovations in teaching methods and facilities, the planned development of teachers and the unification of training activities. The end objective is to demonstrate how to train better qualified workers faster to meet the exploding demands in these occupations.

3. Title: A Curriculum Development Program for a Para-Medical Education Center.

Institution: Arizona State University, Tempe, Arizona

Objectives: To examine existing paramedical curriculums and to design new curricula based on the changing requirements of paramedical care to be taught in a closely integrated educational program.

4. Title: American Association of Junior Colleges-National Health Council Committee on Health Technology Education.

Institution: National Health Council, New York, New York.

Objectives: (1) To stimulate and facilitate the development of programs for the education of health technicians; (2) to develop Guidelines for junior college faculties, vocational-technical schools, and health practitioners which will outline procedures to be followed in the planning and development of sound educational programs for health technicians.

5. Title: The Feasibility of a Systematic Study of Manpower Requirements and Educational and Training Programs of Selected Health Occupations.

Institution: Indianapolis Hospital Development Association

Objectives: (1) To involve selected community and health profession leaders in the development of a study plan; (2) to develop a blueprint for systematic plans to study manpower utilization and education and training programs in the Indianapolis, Indiana, metropolitan area; (3) to integrate or coordinate plans of existing Indianapolis area education and training schools for health occupations with Indianapolis Hospital Development Association plans; (4) to become familiar with other comprehensive studies of health manpower utilization and occupational education or training; (5) to use a structured, controlled, systems approach to a comprehensive study of health manpower utilization and education and training; and (6) to determine the degree of interest, cooperation and participation of selected community representatives, health professional leaders and appropriate educators in a comprehensive study of health manpower requirements and education and training programs.

6. Title: Guidance Counselor Institute for Health Careers

Institution: United Hospital Fund of New York

Objectives: (1) To provide and teach guidance counselors how to use current health careers materials; (2) to create an awareness on the part of educators of the problems faced by employers in recruiting adequately trained personnel for health careers; (3) to create a dialogue between representatives of the various health organizations and guidance counselors; (4) to aid guidance counselors in their consultations with students regarding the diverse opportunities and satisfactions of health careers; (5) to develop procedures for the continuing education of guidance personnel to provide them with information on the manpower requirements in the health field; (6) to aid others in planning similar guidance counselor health institutes by developing a guide of the steps followed in organizing this institute.

7. Title: A Functional Analysis of Paramedical Occupations as a Foundation for Curriculum Development.

Institution: Arizona Health Services Education Association, Phoenix, Arizona.

Objectives: There is a nationwide need for increased effectiveness of instructional programs for the paramedical vocations. Current research and development projects will probably show how such instructional programs can be improved up to the limit set by the present state of the educational art in general.

The proposed project will explore the possibility of further curriculum refinement by removal of a major semantic barrier and by developing functional definitions of paramedical occupations.

8. Title: Mental Health Association Staff Training Conference

Institution: National Association for Mental Health

Objectives: To help professional staff members of mental health associations to gain increased knowledge and understanding of the role they may effectively play in helping to sponsor, initiate, encourage and collaborate in the establishment of educational programs, as well as in other specific methods aimed at upgrading the usefulness and status of subprofessionals, many of whom may realistically be drawn from the economically disadvantaged, to work both in existing state hospital programs and in emerging community health center programs.

9. Title: Development of a Curriculum Guide in Bio-Medical Equipment Technology

Institution: Technical Education Research Center, Cambridge, Massachusetts.

Objectives: (1) To study the entire field of bio-medical equipment technology focusing on the work and training of technicians; (2) to develop a two-year post-high school curriculum guide in bio-medical equipment technology; (3) to estimate current and expected employment of technicians in this field.

The United States Public Health Service is also very much concerned with health manpower. In August 1965, the Public Health Service created a Manpower Resources Program in its Division of Community Health, Bureau of State Services. With broad responsibility to investigate and define health manpower problems, its activities and interests are directed toward two main areas: (1) increasing the supply of trained health manpower and (2) improving manpower utilization. Under this Program contracts have been awarded for a variety of projects concerned with statistical planning, operations research, centralization of research and development information, planning and participation in health manpower conferences, and investigation of the behavioral sciences as they pertain to the selection of personnel and the motivations that govern people in their choice of a career. More specifically, the Manpower Resources Program has participated in planning and/or promoting the "Conference on Job Development and Training for Workers in Health Services" held in Washington last February, the "Workshop for State Health Careers Councils Personnel" held in St. Louis last March, the American Hospital Association's survey of hospital manpower, refresher courses for women physicians, retraining programs for inactive medical technologists, training programs for orthopedic technicians and psychological assistants, and a health manpower information clearing house for the State of Oklahoma.

I have not tried to describe all sources of Federal Assistance to health occupations education, but rather, to give you some examples of progress that is being made as a result of the effective cooperation of persons in Federal, State and local governments, and private organizations who are interested in health and education. It is important that we maintain a close creative partnership and still preserve the integrity and independence of medical and educational institutions. The members of this conference have the opportunity and the responsibility of helping to decide the direction of health education and research programs.

Wednesday, October 5, 1966:
"Concept of a Center for Health Occupations"

by

Miss Helen Powers, Chief,
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U. S. Office of Education,
Washington, D. C.

I am delighted to be here this morning, and I sincerely mean that, because I was thinking, as this conference opened, how alone a few of us felt ten years ago when the Congress said, "There will be a Program -Federal, State and Local funding-for training practical nurses and other similar health workers."

The togetherness that we have seen here during these three days, and which we are seeing on many occasions is something that brings a great deal of satisfaction to those of us who struggled in the early days and pleaded with our co-workers to begin to develop some forum where we could exchange information, where we could talk together and develop a language for communication, and keep that communication going on so that the problems with which we were dealing and working could hopefully be resolved. Believe me, I do not feel alone today, at all!

Miss Nangle asked me if I would present a concept of a Center for Health Occupations Training, and footnoted her request with the explanation that I would tell this group about what took place in Chicago at a Seminar held in July of this year. This was a Seminar funded by Ohio State University Center for Research in Vocational and Technical Education. Miss Nangle was the coordinator of that Project. Hopefully, a report from that conference will soon be available and you can read of it in detail what took place at the Chicago Conference. This was the first of its kind to discuss the development of a Center.

I think we should go back a little historically, to talk about a center and the "concept of a center" for training sub-professional personnel in the health field.

Historically, we have trained workers for jobs at the subprofessional level primarily in individual programs. Most of these were conducted by a service agency, the hospital providing a greater share of this training even as of today.

These individual programs have served their purpose, certainly. They have provided workers. They have also kept these agencies quite busy with the turn-over -the rapid turn-over of workers, the rapid change in the type of job for which training was to be given, the emergence of new groups of occupations, new types of occupations, along with the increasing emphasis on the need for the individual development of each student, or of each trainee.

This, we feel, is within perhaps the responsibility of education as a whole, and not particularly the responsibility of the service agency providing a training program. And, as recognition of this need has emerged, institutions have more and more come to the education systems of the country to ask for help in preparing their health manpower.

I am supposed to develop a concept here this morning about a center. I suspect, that as I do this each of you has a concept in your mind, and I'm using the word "concept" to mean "an understanding of a term or idea" and as I talk to you, some of you are going to say, "well, that is not MY concept," or, conversely, "that agrees with my concept," as the case may be.

Thus, I am going to put up a defense by saying that this is a concept that was discussed by the conferees in the Chicago Seminar. Furthermore, as one more protective device, we were treated to an unusual experience yesterday in visiting the Springfield Trade and Technical Schools with the Center, that is under the administration of Mr. Garvey and programs under the direction of Mrs. Thompson, who is sitting here with us today.

Any effort on my part to conceptualize what we saw there yesterday would be rather a puny effort because I don't know how in a few moments it would be possible for me to describe, for example, the relationship between the students and the faculty.

We talk about the "teaching-learning situation", and when we verbalize about it, something becomes stereotyped, something that was frequently for many of us an unsatisfactory experience. Here in this center, yesterday, we saw students and teachers enjoying together. What has happening, I suspect, was that we were seeing some ideal teaching-learning situations.

Furthermore, how do you describe the dedication of the teachers and the Administration that we saw exemplified at Spring field yesterday? How do you describe the flexibility that we could see within these programs?

The educational climate of Springfield is certainly something that needs to be described!

We are grateful to the wonderful people at Springfield for making it possible for us to come to visit with them, to provide us with the opportunity to see and acquire an understanding of what was happening there. Withal, we appreciate that this is one concept of a training center to prepare health manpower.

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As we go back to the Chicago seminar, we find there are many concepts, many ideas about a center that were presented by the persons there. For the benefit of those of you who did not reach Chicago, and many of you could not get there because of the Airplane strike, we had a few days' excellent interchange.

What, then, did the Chicago group decide is a Center? The most comprehensive definition which they gave, frightens me a little bit. Perhaps, it is too complex a definition with which to begin here. However, I think that I would like to begin with the comprehensive and proceed to the narrower or more specific definitions.

Defined, they said that "a center covers all educational services, provides all educational services, at all levels from pre-school to post-doctoral level, for all vocations that are found in the health field." Therefore, this center concept includes all types of schools: pre-kindergarten to post-doctoral programs in our universities.

And then we come down to a more specific description of the center through which the groups delimited the concept to "an organized department or facility, or unit, within a school or school system that provides occupational training for the health occupation."

Such centers furnish classrooms, laboratories, equipment, faculty and administrative staff necessary for specific occupational training to be provided in the center, and to work with affiliating agencies such as hospitals, nursing homes, clinics, and the like.

A center is NOT a school in the sense that a school admits students, provides the whole range of educational services as required. Students enrolled in programs at the center maintain their identification with the home school and participate in every way possible in curricular and extra-curricular activities with other students at the parent school.

The question which must logically be answered next, is, "Why should a center be developed to provide for health occupations training?"

Much thought was given to this in the seminar, and we too have given a great deal of thought to reasons for a center being developed. Some of these reasons, and I will not attempt to cover them all, include the following: First this was explained in this fashion: that such training requires special laboratories and equipment, and teaching techniques that are peculiar to the health field. These are not always readily placed, or developed, or conducted in our schools.

Another reason given was that centralizing the special facilities and instructional program provides for better utilization of facilities and staff to serve more students. Also, the development of a center, rather than development of a school for health occupations provided continuing identification with the parent school so that the student might be provided a well-rounded program while pursuing their occupational training goals.

The Chicago group also discussed the fact that youth and adults change their career goals quite frequently. Youth, in particular, does this and needs an open door to school counselors and administrators in order that they might readily change their educational programs.

Once he has been separated from the parent school, the youngster may find it less easy to return, for example, to an academic program, if his interest changes, and should his motivation to pursue an academic education become paramount to him.

Futhermore, the group indicated that occupational training must encompass more than skills per se, that students need and should seek other courses provided by the parent school that would not be available in the center.

I think an example of this yesterday was excellent, when Mrs. Thompson had her English teacher explain the program that is being provided to help the students improve in communication skills!

We saw it also with the business teacher, whose services were obviously quite necessary in many of the programs.

Should students wish to become part of the school band, or enroll in music appreciation courses, whether they are youth or adults, this should be available to them.

Other career goals must then be considered, and the center obviously is not going to be able to provide these, should not provide these, and therefore, the relationship with the parent school is obvious, I think.

An area of general agreement among the participants in the Seminar involved the persons to be served by the center. Much discussion centered around the fact that students, or rather applicants for admission to the schools and to training programs are carefully screened, and we select a few out of many who apply.

One program described at a meeting last week indicated that there were a couple of thousand applicants at one program for thirty places in the training program. (i. e. a ratio of 30:2000)

At Madison, Wisconsin, Mr. Midby tells us that they always have their classes selected one full year in advance!

A student who decides suddenly that he wishes to enroll finds that there is no space in the school for him. He must wait as much as a year or more longer to find admission open to them at the school, not because of his qualifications, but because the schools are selective, can be selective, and therefore, many must be turned away. In your folder, you were given a publication called, The Youth We Have Not Served.

Our people in the Chicago Seminar were gravely concerned about these youth that are turned away, and what happens to them. Many find their way ultimately into the health field. They find themselves employed as a nurse's aide, or may be employed to work in housekeeping department, in the dietary department, or to wash glassware in the laboratory.

These people find a way into the health field somehow, but they reach it without training and come into very low level jobs. They very frequently account for a good percentage of our turnover in the health field.

A center, it was felt by the group then, has as its major purpose, the development of human resources to their maximum.

They were talking about these human resources that are motivated to come to work in the health field, and who, if appropriate types of training are provided, will enter with a much higher level of skill and will better do the job for which they qualify.

People of all ages, then persons with special needs, as well as the "average" man or woman, would be served by the center's program. As a by-product, training information on careers might be developed, even for very young persons in school. There would be in these centers more than just training as a goal, but the staff would endeavor to work with the total range of needs in the health field. Even to the point of helping the development of career information for our children at the elementary school level, secondary, post-secondary, and so on.

Remedial education would be provided for students who needed it at the center, and in cooperation probably with their parent school. Even the gifted and talented seeking help in entering the health field, would and should find the center a valuable resource whereby experience could be obtained in laboratories or in work experience programs. This would help to guide these students in their selections of appropriate fields in which to work.

We all know of the many persons who have started but withdrew. I cannot cite at the moment the drop-out in medical schools, and I know the drop-out statistics in our nursing schools but won't belabor you with this at this time.

Many persons go into training in one of our professions with very little knowledge about them!

The question asked in Chicago was: "Could the center then serve such people as these who do not have their occupational goal established, but can through exploratory experiences under the guidance and supervision of the experts find the appropriate program in which to enroll?"

The Chicago group developed a comprehensive list of functions of the center. Some are appropriate to either a school or a center. Others will provoke considerable discussion and possibly even controversy. Here a selected few, both controversial and non-controversial, may be thought about as I comment upon them.

One was that the functions at various centers may differ according to the particular objectives being sought. What they were saying was, that perhaps one center would serve only Youth. Or, one center for training health workers would admit only youth from area high schools. Another would serve those persons with special needs. One center might serve only the unemployed, or the hard-core unemployed.

On the other hand, one center might serve all persons regardless of educational level.

Furthermore, it would be the function of the center to coordinate the educational services needed by the center, and provided by the parent school. Discussion pointed up the fact that the faculty and administrators at the center had considerably more knowledge of the students' needs, what their trainees should become, and therefore, it should be the responsibility of the center to initiate action and follow through with action that would provide the necessary educational services.

All occupational training programs in the center would provide the student with both didactic and clinical instruction appropriate to the occupational goal being pursued. The center should provide work-study and cooperative programs, also. It should serve schools and communities covering a wide geographic area in some cases.

Another thing that might not seem readily to be a function of the center, that I selected to include, was that the center should work with the employers to improve the working conditions and status for the trained worker in the occupational field! The school not only has the responsibility for preparing the worker, but also for not preparing the workers for low wage occupations. The investment of the school, in terms of dollars and time, and the human resource brings to the center a responsibility for wise administration of these.

The center should not support the continuation of low paid jobs!

The center should utilize all resources efficiently and effectively, including the clinical resources. The cost factor in the training of health workers was of considerable concern to all of us. The cost for training a student in one of our vocational programs, insofar as reported costs are concerned, for the one year program ranges between $500 and $700 a trainee!

These are reported costs but are not the actual costs of training.

The center will need to participate in cost studies and initiate such studies that will serve to help reduce the cost of training or to provide us with at least a usable figure for discussing the cost of training.

Most of you are aware the President has ordered a study on the costs of medical services, and in a large part, the cost of these services undoubtedly is the education and training of workers of health manpower.

How much of it should be, how much can we justify, the cost of medical services? How much of it should be the cost of education and training?

I think the center then will have an important role in the future in helping to identify the costs of education and support them.

The major function of the center is the development of human resources, and this development can be achieved through carefully planned and organized educational programs.

Let us consider what the center is NOT. It is NOT just another school, and a specialized school in the bargain. This was generally felt among the group that we should not look upon training for health occupations as a reason for another type of specialized school. We have a few of these that have developed, and certainly they are making a contribution to training for manpower development.

The Chicago group had some reasons why they felt we should not just develop a specialized school for this. They felt that recruitment and education, placement of the worker, proper utilization of the worker, remedial education, refresher courses and retraining, research and planning and development both for education and utilization of the services of the people they train are all parts of the function of the center.

It was re-emphasized through the Seminar that the center is a means of providing for the joint action of education agencies and health institutions in developing the needed help manpower. This is the place to use the cliche that "health and training of health workers is the business of health agencies and educators."

Conversely, we have said that "education is the business of education!" Neither of these apply. The center is a place where educators and the health industry can come together and jointly work out the problems of education and training! The center will build in the flexibility in the administration and development of programs, hopefully.

We will no longer have obsolete programs that produce workers for whom there are no jobs!

I don't think this exists in the health fields; at least I haven't seen any.

The education of health workers is a joint responsibility of health institutions and the educational establishment. We need flexibility in the center because the new health programs that are being developed under Medicaid and Medicare, the heart disease program, cancer, stroke, and mental health.

These programs are redirecting the way in which health services are rendered in this country, and we will see greater emphasis on the use of health personnel in the home, in the extended care facility in the nursing home, in the community clinics, in community health service centers, and a relative de-emphasis of the use of personnel in hospitals.

This doesn't mean that our hospitals won't be manned, but the hospital will no longer be the largest user, we hope, of health manpower.

The emphasis will be on Prevention. We have long talked of the kind of care for the type of health services that will avoid the crises for which the hospital has been established. Instead, we will anticipate the needs of the people and take care of the situation before it becomes critical in many instances. Consequently, new types of workers are needed. Those we have will have a change in function, a change in the place even, where they will work, and they will need a different type of education and training.

The center must change its programs as the transition takes place in the delivery of medical services. As Commissioner Howe said recently in addressing an Atlanta audience, "It is not the fact of change, but the rapidity of change, that faces education and all our schools."

One such change is the increasing number of jobs for which pre-employment training is required. Even the old "on-the-job" training program, which many of us participated in for years is becoming inadequate. I did this for three years myself in Cleveland, Ohio with the Metropolitan Hospital. In a very brief time, we were able to place some 750 trained persons, through the on-the job training program, in various parts of that 1600-bed hospital.

Now, even the nurse's aide job has become so complex that pre-employment training is highly desirable.

The American Nurses' Association in a statement released in September of 1965 emphasized the need for the educational system to recognize this change and to establish programs that would provide pre-employment training and an introduction to that area of work. Thus, there is this movement from on-the-job training to pre-employment training.

There are different concepts of what "on-the-job training" consists of, perhaps. I'm talking about the employee-employer relationship. The individual is not fully trained for his job, and his training becomes part of his employment. It is "in-service" training to acquaint the new employee with the agency's operation and is rather designed to acquaint them and provide them with the necessary skills.

Now, if you're talking about on-the-job training in the same sense, then more and more of the occupations in the health fields have moved from on-the-job training to this stage where pre-employment training is essential. This, however, does not exclude from the training of the worker the necessity for carefully planning and organizing the instruction and establishing a close relationship and correlation between the theory, the classroom instruction, and the clinical application of that instruction. Such instruction must build carefully from the simple basic principles to the more complex knowledge, theory, and principles these individuals must learn.

It may be shocking also to some of the traditionalists that the programs do not or may not always fit our traditional structure in the educational system. There is nothing sacred about the one year!

It is true we have a one year program in many of these occupations. One calendar year is very sacred in one or two of them. One academic year is terribly important in several others.

Some feel that if you don't have an exact number of hours, the "correct" number of hours, in the curriculum that this is unfortunate!

I recall, Mr. Seagren, how shocked everyone in the nation seemed to be, those who were concerned with this program, when we pointed out that the school day in Florida is NOT eight hours, the school week is NOT a 48 hour week, or 44 hours a week in the health occupations training programs. The school was operating six hours a day for the students. They were horrified! 'Aaaah!' they said, 'only 1400 hours in the program. That's terrible!'

1400 hours in the program of planned instruction for the students with some time for personal growth and development sounded very ideal to us. And many programs have recognized this. We must go further, and admit there is nothing sacred about semesters and quarters, or credit hour systems, or school days from 9 to 5.

In our zeal to develop programs rapidly, and programs of quality, let us not confuse these accoutrements of education with quality in education! They are two different things.

If it is necessary to operate a program for seven months, and if this is the required time to develop the necessary attitudes, knowledge, and skills, let us be courageous enough to establish a seven-month program and end it there, hopefully, with plans for the continuing education of this person when they are employed in a job!

A further comment about one of the functions and characteristics of the center: We have said, and in print, "the center is an appropriate place where core curriculum can be developed."

Yes, we have some core in curriculums in centers that are in operation, here at Springfield and in Madison, Wisconsin, and at the Institute of Technology, Milwaukee. It is being developed in several of the research projects which Dr. Legg described earlier.

There is much talk about a Core Curriculum. But, there is much research needed.

I would emphasize that there is a core in all curricula, as in the total curriculum that relates to health. You cannot enroll in kindergarten today without learning how to brush your teeth, if you didn't learn it before. Children are taught to wash their hands, and few other basic health rules. The point that I would like to make again, is that while we are establishing core, let us remember that a great deal of what is being required to be known by persons working in the health field, is becoming common knowledge today! It is part of everyone's knowledge.

When I left the Department of Nursing at George Washington University, I was beginning to become quite concerned. When I would visit a patient and talk with him, I was keeping away from the patient 90% of what was known about his diagnosis, prognosis, and treatment. More and more as I sat there, I was discovering that I did not have 90% and he 10% of that knowledge. I was down to 10% and rapidly losing that.

People today know more about their own health and the health of a lot of other people. And we give them credit for knowing. This is not true, of course, of all social levels in our population yet. But it could be true to a certain extent, if we would give some attention to the general education curriculum and the content on health, the thread of health that runs through the general educational curriculum. This would give us an asset that we presently do not have.

We admit our students, and assume they know nothing. Therefore, we have to teach them everything, because we really don't know how much they know about health. We have really no tests to determine what they know!

Curricula in the elementary and secondary schools differ. If I were admitting a student to my program from some of our schools in Virginia, I would have to eliminate a great deal of the instruction that is given to students from a less fortunate school system, in this country.

To illustrate, one of our teachers in Alaska said, when asked, "What do you teach a student first in this program?" "Oh," said the teacher, "they come into school on the first day, and we teach our Eskimo students how to sit on a chair!"

Now we do determine where we must begin to start to teach these students, where they can begin to learn. Most of ours do not have to be taught how to sit in a chair, nor how to turn the lights off in a room. But, in their knowledge of health, we have great variations.

If health is a basic right of every human being, then we have a long way to go in developing the content, not only in the general education curriculum, but improving the content in our occupational training programs as well.

Now, I have talked too long, and too much, but please let me wind up with one statement.

A center concept, I think you may conclude from this, will be unique in each community.

Dr. Legg described a number of projects in which centers are being developed or, funded through the research program to some extent, where studies are being conducted in developing such centers.

Again, I would recommend to you the report on the Chicago Seminar and reports from these other projects under way.

I have not talked about other centers, but thought that in view of the fact that we visited the center at Springfield, that you ought to see what is being planned elsewhere. You remember the story about the rooster in the chicken yard, who got quite fussed. He was terribly upset, and went around to call the hens together for a meeting. It seems that across the fence, someone had thrown a white basketball. He said to the hens, "Now, I do not want you to think that I am complaining, but I want you to go over to that east corner, and just see what they are doing there!"

And so, not to compete with what we saw yesterday, but rather to show another idea of a center that is being developed, I asked Mr. Seagren, who just happened to bring some slides from his program with him, to show us what is happening in Miami. They have much that is going on in the Lindsey-Hopkins Center in Miami, and this may be a good way for you to take back with you, varied ideas of a concept for a center, with the idea, hopefully, *that out of these* ideas may come some way to apply what is good to each unique center in each community.

Monday, October 4, 1966

"Impromptu Speech about Tufts' Facilities and Interest in Education for Health Technicians"

by

Dr. Conrad Herr M.D., Executive Director
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Tufts University School of Medicine,
Department of Preventive Medicine.

Note: The following comments were made by Dr. Herr upon request, and without any formal preparation. We have the speaker's permission to use these comments and to transcribe and edit them for publication.

Tufts' Department of Preventive Medicine, listening to everyone talk about comprehensive health care, wanted to see what it really was, and felt that the only way that we could see what it was, was to take a piece of the world and experiment. We had a nice piece of the world neatly isolated, the ownership of which, between the various burroughs of Boston, South Boston or Dorchester was still in doubt.

It's ancestry was a garbage dump, a housing development of some 1504 apartments, 6000 people with no organized, or disorganized, health care facilities in its neighborhood.

The Columbia Point Housing Development was built about thirteen years ago and was truly built on a refuse dump. The refuse dump was not closed until about five years ago, so for those of you interested in non-verbal communication, we told these people, "You live on a garbage dump and garbage continues to be dumped upon you.'

Non-verbally, these people were given a very well-calculated kick in the teeth. They were suspicious of Tufts when Tufts talked about coming out to Columbia Point to open a health center because many, many other people have been through with their questionnaires, with their ideas on health, and most of them disappeared after a very short tenure.

We felt that it was important in our non-verbal communication to do something relatively permanent so far as a structure in which to work.

With this in mind, we gutted three stories of two-bedroom apartments. Each floor had four two-bedroom apartments so we took over twelve. This was not terrible; there were a lot of vacancies at Columbia Point. Columbia Point, you see, is not considered the nicest housing development in which to live. We renovated these apartments, and made them LOOK clean by painting them WHITE. That's a regression, perhaps, from the modern concept that hospitals nowadays should be green. However, the residents help decide upon the decor. They said, "Don't paint it green!"

When they couldn't altogether decide what they DID want, I said, "We will paint the whole thing white, and we shall cover the walls with pictures, and that will be fine."

We had the minor problem of a limited budget for furniture. Here I was consulting with the experts on living with limited budgets. This didn't bother our people as much as it bothered me.

They smiled, and said, "We will put the nice furniture out front where the visitors come and back where the doctors work, put the cheap gray desks, and it will look nice." And that is just the way it turned out, too.

Of interest to this conference is what happened next. While the building was being gutted by the contractors, I was meeting with the Columbia Point Health Association. This was a creature created through the Department of Preventive Medicine.

We rapidly lost control of this group. We did not want control of this group. This group talks back, and tells us what they like and what we are doing, and what they don't like.

It rapidly became a very strong organization — in, and of, itself.

The people of Columbia Point next asked, "Are you going to have any jobs there?" (We were due to open in December and this was November.) The jobs are very important to poor people. They are interested in the job market.

I took my chalk, and wrote the list on the blackboard, of the jobs that might possibly be available.

Secretarial jobs, record room clerks, medical transcription, drivers, ambulance drivers, transportation people, communications' people, switchboard operators, right down the list, nurses' aides, janitors, what have you.

There was a howl from the audience that 'Lord, you can't have a resident of Columbia Point being a nurse's aide! After all, she would be my neighbor - and we don't want this lack of confidentiality." One by one, at their request, each job was erased from the board, until just one remained, that of janitor, down at the very bottom of the list.

I said to them, "What you have just told me is that the only job a Columbia Point resident is worthy of holding is the job of janitor." They said, after some thought, "No, that is not what we mean." "Put everything back." And so, everything was put back. Now, why is this?

I worked in a hospital in Williamson, West Virginia. Actually it was on Wilson's Bottom of Turkey Creek of High County, Kentucky. We had a little town of 6,000 people. Same size as Columbia Point. The hospital of 120 beds was staffed by residents of the town, - all of the professional, paraprofessionals except the doctor lived there. And there were no complaints of lack of confidentiality. There were no complaints about people in sensitive jobs. There were rural people, living in a small town. And they expected this cozy interchange of the latest gossip about health and disease. Columbia Point is a small town, isolated.

You can't get out of Columbia Point to anywhere, except on two public vehicles. You must transfer to go anywhere. And you can't go anyplace if you want to stay late at night, because transportation stops when it gets dark.

You see, it's a small town just like Williamson, West Virginia. The difference is that our people here are urban. They are not comfortable in a small town. Our concepts, our ideas, as far as training these people were really shaken.

I had no doubt that these people could be as professional nurses' aides as anyone, as professional medical transcriptionist as anybody else.

Not only did I have to convince my trainees that I had confidence in them. I continued, and continue today, to work with the whole community to get them to accept their neighbors as adequate, trustworthy - health career workers!

I agree with the people who have been talking today that there is no such thing as a non-health career person working in a health facility. The janitor, certainly, is just as much a part of the team as anybody else, and I have heard from MGH, a nurse who came to look at us, who said that one thing she wouldn't like about working at Columbia Point was the fact that nurses supervised stenographic work, and that stenographic help should be, you know, in a pool - march in and out - and have nothing to do with the care of a patient. This we don't believe in!

We believe that the stenographic people are as much a part of the health care team as anybody else, nurse or anyone.

If you don't think the patients don't ask the janitor "What's going on, huh?" - you've got another think coming! They do, they do. "Have I got a fever?" they ask the girl who is dusting the room. And the girl will say "No," or "yes" unless you train her to be a part of the team.

We were forced into this kind of training. We anticipated being a consumer of the schools that are producing health career personnel. But we found that some of the health personnel come to us with a different attitude toward the delivery of care to the poor than we had envisioned. We are trying to deliver personalized family oriented care to this poverty population. It is a poverty population only incidentally. It is a consumer group which can, and does respond, in a very sophisticated way to the kind of care it receives.

We have a 'Sounding Board' in this community that regularly, every other week, sounds off, with what it likes and what it doesn't like about what we are doing.

For one example, our night and weekend coverage was primarily young internal medicine people who needed extra money. The population didn't like them. And they were not bad guys, as they say, but good guys. But the load was predominantly pediatric at night and on weekends, and what these guys were saying is that "this child has fever, and I can't find anything wrong, and why are you embarrassing me this way. This kid's been sick all day. I know he's been sick all day. Why didn't you bring him in when the pediatrician was here?" And the people answered back, "Look, to be talked to like that, I can go to a hospital, but I don't expect it here, and I don't want to come here and be talked to that way!"

Our response was to change from Internal Medicine people to Pediatricians at night and on week-ends. The pediatricians are much more comfortable handling the occasional adult medical emergency than are the internists in handling the constant stream of kids with high fever, and nothing wrong.

So, whether this concept of decentralizing the care of the poor, of taking care out into the neighborhoods, expands or not, I don't know.

But, certainly, we need more health career people who are oriented towards the kind of personalized family-oriented care that we are trying to deliver!

This is nothing new. The nurse of the old GP knew all the families. His record girl knew the financial situation of the families. But this is the clue. This is what allowed the GP to act as a family doctor. The GP in New England is just about gone. There is not a single boy in the senior class at Tufts who has expressed a desire to go into the general practice of medicine. They are all going to specialize. How, with highly trained specialists can you deliver care that is perceived by the consumer as personalized and family oriented?

I think the doctor is going to have to depend on his paraprofessional team to get this idea across. This is what we're trying to do.

APPENDIX B

LIST OF PARTICIPANTS

REGISTRATION AT CONFERENCE - OCTOBER 3-5, 1966

New Patterns of Education for Health Technicians

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APPENDIX C

PROGRAM

PROGRAM - MONDAY, OCTOBER 3, 1966

CONFERENCE ON NEW PATTERNS OF EDUCATION FOR HEALTH TECHNICIANS

Tufts University School of Medicine and Dental Medicine
136 Harrison Avenue, Boston, Massachusetts

9:00 - 9:30 a.m.	**Registration: Room - Patten A and B** **Grace L. Nangle, R.N.** **Senior Supervisor** **Health Occupations Training** **Bureau of Vocational Education** **Massachusetts Department of Education**
9:30 - 10:00 a.m.	**Greetings to the Conference** **Owen B. Kiernan, Commissioner of Education** **Massachusetts Department of Education** **Leonard C. Mead, Acting President** **Tufts University** **Walter J. Markham, Director** **Bureau of Vocational Education**
10:00 - 10:30 a.m.	**"Projected Manpower Needs for the Health Services"** **Mrs. Margaret West, Assistant Chief** **Division of Public Health Methods** **United States Public Health Service** **Bethesda, Maryland**
10:30 - 10:50 a.m.	**Break**
10:50 - 11:20 a.m.	**"The Hospital's Role in In-Service Education"** **Dr. Ellsworth Neumann, Administrator** **Massachusetts General Hospital**
11:20 - 12:15 p.m.	**"Post High School Certificate Program"** **Mrs. Teresina Thompson, Assistant Director** **Springfield Trade High School and Technical Institute, Springfield, Massachusetts**
12:15 - 1:30 p.m.	**Lunch Break**

CONFERENCE ON NEW PATTERNS OF EDUCATION FOR HEALTH TECHNICIANS - continued

1:30-2:00 p.m.	"The University's Role in Para-Medical Education" Edmund McTernan, Associate Professor Northeastern University
2:00-2:30 p.m.	"Junior College Programs of Preparation for Health Technicians" Robert Kinsinger, Director Division of Public Affairs and Education Kellogg Foundation, Battle Creek, Michigan
2:30-2:45 p.m.	Break
3:45-5:00 p.m.	Small Group Discussions Rooms to be assigned

PROGRAM - TUESDAY, OCTOBER 4, 1966

CONFERENCE ON NEW PATTERNS OF EDUCATION FOR HEALTH TECHNICIANS

Field trip to Springfield Trade High School and Technical Institute
(Bus leaves hotel - 7:30 a.m.)
Arrives at Springfield Trade and Technical Institute - 9:30 a.m.

Group Meeting in Library - 9:30-10:00 a.m.

Tour of Facilities - 10:00-12:00 a.m.

Meeting - 12:00-12:30 p.m.

Luncheon - 1:00-1:45 p.m.

Tour of Hospitals - 2:00-3:00 p.m.

Meeting at School - 3:30-4:00 p.m.

Bus leaves School - 4:00 p.m.

Arrives at Hotel approximately - 6:00 p.m.

PROGRAM - WEDNESDAY, OCTOBER 5, 1966

CONFERENCE ON NEW PATTERNS OF EDUCATION FOR HEALTH TECHNICIANS

Presiding - Miss Raphaela Picucci,
Supervisor, Health Occupations Training
Bureau of Vocational Education
Massachusetts Department of Education

9:00 a.m.	"Methods of Funding Educational Programs for Health Technicians" Dr. Otto Legg, Assistant Director for Program Planning and Development Division of Vocational and Technical Education U.S. Office of Education, Washington, D.C.
10:15-10:30 a.m.	Break
10:30-11:00 a.m.	"Concept of a Center for Health Occupations" Principal Discussant: Helen Powers, Chief Health Occupations Training Division of Vocational and Technical Education U.S. Office of Education, Washington, D.C.
11:00-12:00 a.m.	Small Group Discussion
12:00-1:30 p.m.	Lunch
1:30-3:15 p.m.	Small Group Discussion
3:45-4:15 p.m.	Report of Group Discussions Announcement of Executive Committee Concluding Remarks: Dean William Maloney, Tufts University, School of Medicine Dean Louis Calisti, Tufts University, School of Dental Medicine

APPENDIX D

PARTICIPANT SURVEY QUESTIONNAIRE

FOLLOW UP QUESTIONNAIRE
ON
THE CONFERENCE ON NEW PATTERNS OF EDUCATION
FOR
HEALTH TECHNICIANS
(October 3, 4, and 5, 1966)

SURVEY OF CONFEREES

May 5, 1967

Please return to:

Miss Grace L. Nangle, Senior Supervisor
Bureau of Vocational Education
Massachusetts Department of Education
182 Tremont Street (8th floor)
Boston, Massachusetts 02111

Requested return date: May 20, 1967

Preliminary Note:

Not all of you may be in positions where you can directly initiate a health occupational program. If this is so, please note. However, if you acted as a consultant to others who are developing programs, please note, instead, any ways in which you may have used ideas, techniques or contacts which you gained or refined during the conference. Also, we would still appreciate your ideas on any of the below questions which do not presuppose your direct involvement with an actual or planned educational program.

* * * * * * * * *

1. Name of Respondent ______________________________
2. Position ______________________________
3. Affiliation (s) ______________________________

   ____
4. Organizational Address ______________________________

   ____

   ____

   Telephone ____________________

Item A - Current Expanded or Planned Health Occupations Programs

(Note: Column headings are self-explanatory, except for Column F, which is the formal qualification afforded the student when he terminates. Please list whether D (Diploma) or C (Certificate) for one-year post high school programs; or AD (Associate Degree) or BD (Baccalaureate Degree) for programs beyond the one-year level.

Col. A Occupational Area (e.g. - Nursing related, Dental related, Dietary related, etc.)	Col. B Program Status: C = Current E = Expanded P = Planned	Col. C Starting Date	Col. D No. of Students	Col. E Source (s) of Funding	Col. F D = Diploma C = Certificate AD = Associate Degree BD = Baccalaureate Degree

Item B - Assessment of Conference

1. In your recollections of the Conference, would you evaluate the significance of the following topics or parts of the Program (check one in each case):

	Highly Important	Important	Less Important
a. Projection of health manpower needs.			
b. Communication with and motivation of students and workers.			
c. History of the development of a health occupations education center.			
d. Description of an ongoinging community health center.			

	Highly Important	Important	Less Important
e. Description of available sources of funding for health occupations education courses and centers.			
f. Description of the concept of health occupations education center.			
g. Field trip to Springfield Trade High School and Technical Institute.			
h. Description of the University's involvement in Para Medical Education.			
i. Group discussions.			
j. Summary of group discussions.			

2. Would you indicate what subjects or information were not included that you needed or looked for. (List 3 or less):

   a. ______________________________

   b. ______________________________

   c. ______________________________

Item C - Estimation of Conference Impact

Part I - New Programs in Operation (or old programs which have been altered because of Conference outcomes).

(If answer to first question, below, is "No," please skip to Part II.)

	Yes	No
1. Were any new program(s) initiated as a consequence of conference?	____	____

2. If so, please give following information:

   a. Type of Program: (D, C, AD, BC) ______________________________

   b. Institution ______________________________

   c. Location ______________________________

   ____

   d. Occupation ______________________________

   e. No. of Students ______________________________

3. In what way(s) did conference outcomes assist you in the establishment of this program?

____

____

____

____

4. How do you propose to evaluate this program?

____

____

____

____

	Yes	No
5. Did you use the available guidelines from the U.S. Office of Education, Division of Vocational and Technical Education?	___	___
6. Did you contact the State Supervisor, Health Occupations Education, in your own Bureau or Division of Vocational Education?	___	___
7. Did you contact the Hospital Association Regional Planning Committee?	___	___
8. Did you contact the State Department of Public Health?	___	___
9. Were community and/or professional advisory committees used? (Check one only, below, if "Yes.") Community __________ Professional ____________ Both _________	___	___
10. Have you collaborated or consulted with any other organizations (public, private, state and/or federal) in the planning or operation of this program?	___	___

If "yes," please list.

____

____

____

11. If any of the organizations listed in question 10 were regional please list?

____

____

12. What curriculum guides do you use for these programs?

Name	Source

	Yes	No
13. Did you receive assistance from a Regional Education Laboratory with regard to curriculum materials?		

14. What assistance do you now need for this program? (Check where applicable.)

	(Check here)
Curriculum Materials	
Guidelines for program development	
Advice on Ancillary Services (e.g., guidance, placement, testing, teacher training)	
Other (please state)	

15. What difficulties have you encountered in the establishment and/or operation of this program? (Please describe briefly or mark "None.")

Facilities

Funds

Availability of teachers

Professional requirements for licensure and/or certification

Other

Yes No

16. Have you used any "new" instructional techniques and/or media in this program (e.g., team teaching, programmed instruction)? ___ ___

If "Yes," please list and give source of device or material.

Type Source

___

___

___

Part II - New Programs Being Planned (Please check). ___ ___

1. If no new programs are being planned, please discuss reason(s) for delay.

___

___

___

___

2. List the specific assistance (other than funds) which you feel you need from the following sources, in establishing and/or operating your future program(s). If "none," please state.

a. from USOE or other federal agency

___

___

b. from regional R & D Clearinghouses or Laboratories

___

___

c. from your own State and/or local resource groups

___

___

Item D - General Questions

1. How have you developed more effective interaction with high school administrators, faculty members, and the programs for which they are responsible? Describe Briefly?

   a. Visitation to high schools to observe science and other classes?

   b. Joint faculty consultation?

   c. Conference with guidance personnel?

   d. Recruitment information disseminated?

   e. Joint participation on curriculum committees?

	Yes	No
2. Do you use methods other than those listed on question #1 above to assist students of high schools to become involved in preparation for careers in the health services? If so, describe.	___	___
3. Are you interested in using the film strip referred to in the accompanying letter? If so, what dates would be convenient for you to show it?	___	___

THANK YOU FOR YOUR COOPERATION IN COMPLETING THE QUESTIONNAIRE!